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TEKNODUR AQUA 3390 EPOXY / POLYURETHANE SYSTEMS

K1

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Coating systems for steel and zinc surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, water-borne two-pack epoxy and polyurethane reactive paints. Weatherproof TEKNODUR AQUA 3390 is used for topcoat.

Teknos Coating System Symbol	K1a	K1b	K1e	K1c	K1d
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	-	-	-	-
The coating system structure:	EPPUR120/2- FeSa 2½	EPPUR160/3- FeSa 2½	EPPUR200/4- FeSa 2½	EPPUR200/3- FeSa 2½	EPPUR120/2- ZnSaS
TEKNOPOX AQUA PRIMER 3 Epoxy Primer	1 x 80 µm	2 x 60 µm	2 x 60 µm	2 x 80 µm	1 x 80 µm
TEKNODUR AQUA 3390 Polyurethane Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNODUR AQUA 3390 Polyurethane Varnish	-	-	1 x 40 µm	-	-
Total film thickness	120 µm	160 µm	200 µm	200 µm	120 µm
Coating system VOC, g/m ²	16	19	28	23	16

Example of the coating system marking: K1a - EPPUR120/2-FeSa 2½

Usage Steel and zinc surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
K1a	Protection for steel surfaces in corrosivity categories C2 and C3.
K1b	Protection for steel surfaces in corrosivity categories C2 and C3.
K1c	Protection for steel surfaces in corrosivity categories C2 and C3.
K1e	Protection for steel surfaces in corrosivity categories C2 and C3, when the topcoat is required to have excellent gloss and colour retention.
K1d	Protection for hot-dip-galvanized surfaces in corrosivity categories C2 and C3.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO PVB Prefabrication Primer and KORRO E Epoxy Prefabrication Primer.

Application Before painting the mixing and spraying equipment must be carefully rinsed with clean water. After the painting the equipment is washed first with water and then with solvent.

Stir the components of the paint thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, air-assisted low-pressure spray. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas.

Touch up the prepared patches with the paints of the system to the original film thickness. If a uniform appearance is desired, the whole surface should be cleaned and then overcoated with the system's topcoat.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNOPOX AQUA PRIMER 3		TEKNODUR AQUA 3390	
Data Sheet	no.	621	1005	
Paint Type	water-based two-pack epoxy primer		water-based two pack polyurethane topcoat and varnish	
Colours	grey, red		Teknomix tinting. By agreement	
Finish	semi-matt		09: gloss 07: abt. 70 (viewed at 60° angle) 05: semi-gloss 03: semi-matt	
Thinner	water		water, TEKNOSOLV 1936	
Methods of application	airless spray		conventional spray or airless spray	
Airless spray nozzle	0.013 - 0.018"		0.011 - 0.013"	
Application conditions				
- min. temperature	°C	+10	+10	
- max. relative humidity	%	30 - 70	30 - 70	
Safety markings	See Material Safety Data Sheet		See Material Safety Data Sheet	
Volume solids	%	45 ±2	paint: 42 ±2 varnish: 40 ±2	
Total mass of solids	g/l	abt. 680	paint: abt. 560 varnish: abt. 450	
Volatile organic compound (VOC)	g/l	abt. 40	abt. 90	
Recommended film thickness			paint: 95 40 varnish: 100 40	
- wet	µm	133 - 177		
- dry	µm	60 - 80		
Theoretical spreading rate	m²/l	7.5 - 5.6	paint: 10.5 varnish: 10.0	
Drying time, +23°C / 50 % RH		(dry film 60 µm) with TEKNOPOX AQUA HARDENER 0300 / with TEKNOPOX AQUA HARDENER 0300-02: after 2 h / after 50 min after 10 h / after 5 h	(dry film 40 µm) after 2½ h after 6½ h	
- dust free (ISO 9117-3:2010)				
- touch dry (DIN 53150:1995)				
Overcoatable, 50 % RH		by itself	by itself :	
		min.	max.*	min.
+10°C		after 1 d	after 6 months	after 1 d
+23°C		after 4 h	after 6 months	after 14 d
		with TEKNODUR AQUA 3390:		
		min.	max.*	
+10°C		after 2 d	after 1 month	
+23°C		after 4 h	after 1 month	

* Maximum overcoating interval without roughening.

TEKNODUR COMBI 0550 - POLYURETHANE SYSTEM

K2

11 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of active pigmented two pack polyurethane reactive paints. The paints are quick drying and are suitable straight onto steel surfaces either one or two layer systems. The paint is full gloss (TEKNODUR COMBI 0550-09), semigloss (TEKNODUR COMBI 0550-02) or semi-matt (TEKNODUR COMBI 0550-03).

Teknos Coating Systems Symbol	K2a	K2b
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	-
The coating system structure:	PUR100/1- FeSa 2½	PUR120/2- FeSa 2½
TEKNODUR COMBI 0550 Polyurethane Paint	1 x 100 µm	2 x 60 µm
Total film thickness	100 µm	120 µm
Coating system VOC, g/m ² paint TEKNODUR COMBI 0550	88	110

Example of the coating system marking: K2a - PUR100/1-FeSa 2½.

Usage Structural steel exposed to atmospheric corrosion indoors and outdoors.

Teknos symbol	Typical use
K2a	Protection for steel structures outdoors in corrosivity category C2. Preparation grade being Sa 2 it is equivalent to standard's SFS 5873 system F20.03 in corrosivity categories C1 - C2 and preparation grade being St 2 it is equivalent to same standard's system R25.03 corrosivity categories C1 - C2.
K2b	Protection for steel structures outdoors in corrosivity category C3.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

STEEL SURFACES: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO PVB Prefabrication Primer and KORRO E Epoxy Prefabrication Primer.

Application Stir the components thoroughly before use.
Apply the paints onto surface that is dry and is free of dust to even and required film thickness.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up.
Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes painting the whole surface with top coat, matt down glossy old paint coats and remove all dust and grindings. Touch up the prepared patches with the primer and the top coat of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNODUR COMBI 0550	
Data Sheet	no.	936
Paint Type	Polyurethane paint	
Colours	By agreement, the paint is included in the Teknomix tinting system.	
Finish	TEKNODUR COMBI 0550-03: semi-matt TEKNODUR COMBI 0550-05: semigloss TEKNODUR COMBI 0550-09: gloss	
Thinner	TEKNOSOLV 1640 or TEKNOSOLV 9521	
Methods of application	airless spray	
Airless spray nozzle	0.011 - 0.017"	
Application conditions	°C	+5
- min. temperature	%	80
- max. relative humidity		
Safety markings	See Material Safety Sheet	
Volume solids	%	50 ±2 (ISO 3233:1988)
Total mass of solids	g/l	TEKNODUR COMBI 0550-03: abt. 670 g/l TEKNODUR COMBI 0550-05: abt. 670 g/l TEKNODUR COMBI 0550-09: abt. 570 g/l
Volatile organic compound (VOC)	g/l	TEKNODUR COMBI 0550-03: abt. 440 g/l TEKNODUR COMBI 0550-05: abt. 440 g/l TEKNODUR COMBI 0550-09: abt. 500 g/l
Recommended film thickness	µm	120 - 200
- wet	µm	60 - 100
- dry		
Theoretical spreading rate	m ² /l	8.3 – 5.0
Drying time at +23° C / 50% RH	(dry film 40 µm)	
- dust free (ISO 9117-3:2010)	after 1 h	
- touch dry (DIN 53150:1995)	after 3 h	
Overcoatable, 50% RH	by itself:	
	min.	max.
+5°C	after 48 h	-
+23°C	after 24 h	-

TEKNOTAR 100 - COAL TAR EPOXY SYSTEMS

K3

8 12.4.2017

Anticorrosive coating systems for metal surfaces. The systems consist of chemically curing, solvent-borne, two-pack purified epoxy tar paint (so-called tarless tar).

Teknos Coating System Symbol	K3a	K3b	K3c	K3d
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	A5M.08/C5-M/M	-	-
EN ISO 12944-5(1998) symbol/ corrosivity category / durability range	-	S7.16/C5-M/L	S8.07/lm1, lm2, lm3/M	S8.08/lm1, lm2, lm3/H
The coating system structure:	EPC200/2- ZnSaS	EPC300/3- FeSa 2½	EPC360/3- FeSa 2½	EPC500/4- FeSa 2½
TEKNOTAR 100 Purified Epoxy Tar	1 x 100 µm	1 x 100 µm	1 x 120 µm	1 x 125 µm
TEKNOTAR 100 Purified Epoxy Tar	1 x 100 µm	2 x 100 µm	2 x 120 µm	3 x 125 µm
Total film thickness	200 µm	300 µm	360 µm	500 µm
Coating system VOC, g/m ²	100	160	190	260

Example of the coating system marking: K3b - EN ISO 12944-5/ A5M.08 (EPC300/3-FeSa 2½).

USAGE Protection for steel and zinc surfaces exposed to atmospheric corrosion. Protection for underground steel and zinc surfaces. Protection for submerged steel structures.

Teknos symbol	Typical use
K3a	Hot-dip-galvanized surfaces exposed to atmospheric corrosion in corrosivity categories C3 and C4.
K3b	Protection for steel structures in corrosivity category C5-M.
K3c	Subterranean and submerged constructions. Complicated structures. Corrosivity categories lm1, lm2 and lm3.
K3d	Subterranean and submerged structures when long service life and good durability is wanted for cathodically protected steel constructions. Corrosivity categories lm1, lm2 and lm3.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer, KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components thoroughly before use. Mix Base and Hardener carefully with each other in the proportions given on the label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up. Remove flaking paint from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints coat of the system to the original film thickness. If a uniform appearance is desired, the whole surface should be cleaned and then overcoated with the system's top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repaired completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½. Apply the primer and topcoat as for new work.

Technical Data

Paint	TEKNOTAR 100	
Data Sheet	no.	781
Paint Type	Purified Epoxy Tar Paint	
Colours	black and brown	
Finish	semi-matt	
Thinner	TEKNOSOLV 9506	
Methods of application	airless spray or brush	
Airless spray nozzle	0.018 - 0.026	
Application conditions	°C	+10
- min. temperature	%	80
- max. relative humidity	See Material Safety Data Sheet	
Safety markings	See Material Safety Data Sheet	
Volume solids	%	65 ±2
Total mass of solids	g/l	abt. 950
Volatile organic compound (VOC)	g/l	abt. 340
Recommended film thickness		
- wet	µm	153 - 192
- dry	µm	100 - 125
Theoretical spreading rate	m ² /l	6.5 - 5.2
Drying time, +23°C / 50 % RH	(dry film 100 µm)	
- dust free (ISO 9117-3:2010)	after 10 min	
- touch dry (DIN 53150:1995)	after 4 h	
- fully cured	after 7 d	
Overcoatable, 50 % RH	by itself:	
	min.	max.*
+10°C	after 12 h	after 10 d
+23°C	after 4 h	after 7 d

* Maximum overcoating interval without roughening.

TEKNOCHLOR 90 ZINC EPOXY / CHLORINATED RUBBER SYSTEMS

K4

10 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. In the painting systems the primer used is two-pack zinc rich epoxy paint and for the top coats physically drying chlorinated rubber paints.

Teknos Coating System Symbol	K4a	K4b	K4c	K4d
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	-	-	-
The coating system structure:	EPZnCR160/3- FeSa 2½	EPZnCR200/4- FeSa 2½	EPZnCR240/4- FeSa 2½	EPZnCR280/5- FeSa 2½
TEKNOZINC 50 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOCHLOR PRIMER 3 Chlorinated Rubber Primer	1 x 80 µm	2 x 60 µm	2 x 80 µm	2 x 80 µm
TEKNOCHLOR 90 Chlorinated Rubber Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm	2 x 40 µm
Total film thickness	160 µm	200 µm	240 µm	280 µm
Coating system VOC, g/m ²	180	230	280	330

Example of the coating system marking: K4a - EPZnCR160/3-FeSa 2½.

USAGE Structural steel exposed to atmospheric corrosion outdoors.

Teknos symbol	Typical use
K4a	Structural steelwork exposed to atmospheric corrosion outdoors in corrosivity categories C2 - C3.
K4b	Structural steelwork exposed to special atmospheric corrosion outdoors in corrosivity category C4, e.g. industrial buildings, bridges etc. According to Standard SSG 1005 -GB40 TE160 system.
K4c	Structural steelwork outdoors in cellulose manufacturing in corrosivity category C4. According to the standard SSG 1005 - GB40 TE240 system.
K4d	Structural steelwork outdoors exposed to very severe atmospheric corrosion in corrosivity category C4.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer

Application The surface to be painted must be dry. Stir the components of the primer thoroughly before use. Mix the Base and Hardener carefully with each other in the proportion of 5 parts by volume of base and 1 part by volume of hardener. TEKNOZINC 50 SE must be stirred frequently in the course of work to avoid sedimentation of the zinc dust. Apply by brush or airless spray. Apply the chlorinated rubber paints by airless spray. Remove any spray mist before further coats are applied. If bubbling occurs, a thin misty layer of paint should first be applied, followed by a full coat.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. Remove all dust and grindings. Touch up the prepared patches with the chlorinated rubber primer and the top-coat of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top-coat as for new work.

Technical Data

Paint	TEKNOZINC 50 SE	TEKNOCHLOR PRIMER 3	TEKNOCHLOR 90			
Data Sheet No.	729	94	8			
Paint Type	zinc rich epoxy paint	chlorinated rubber primer	chlorinated rubber top coat			
Colours	bluish grey	red, grey	Teknomix tinting			
Finish	matt	matt	gloss			
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9506, TEKNOSOLV 1639, TEKNOSOLV 1640	TEKNOSOLV 9506, TEKNOSOLV 1639, TEKNOSOLV 1640			
Methods of application	airless spray	airless spray	airless spray			
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)	0.015"	0.015"			
Application conditions						
- min. temperature °C	+10	-10	-10			
- max. relative humidity %	80	80	80			
Safety markings	See Material Safety Data Sheet	See Material Safety Data Sheet	See Material Safety Data Sheet			
Volume solids %	50 ±2 (ISO 3233:1988)	42 ±2	42 ±2			
Total mass of solids g/l	abt. 1500	abt. 800	abt. 760			
Volatile organic compound (VOC) g/l	abt. 470	abt. 510	abt. 520			
Recommended film thickness						
- wet µm	80	142 - 190	95			
- dry µm	40	60 - 80	40			
Theoretical spreading rate m ² /l	12.5	7.0 - 5.2	10.5			
Drying time, +23°C / 50 % RH	(dry film 40 µm)	(dry film 60 µm)	(dry film 40 µm)			
- dust free (ISO 9117-3:2010)	after 5 min	after ½ h	after ½ h			
- touch dry (DIN 53150:1995)	after 30 min	after 2 h	after 2 h			
Overcoatable, 50 % RH	by itself or with TEKNOCHLOR PRIMER 3:	by itself or with TEKNOCHLOR 90:	by itself:			
	min.	max.*	min.	max.*	min.	max.*
+5°C	-	-	after 8 h	-	after 8 h	-
+10°C	after 6 h	after 3 months	-	-	-	-
+23°C	after 1 h	after 3 months	after 3 h	-	after 4 h	-

* Maximum overcoating interval without roughening.

TEKNOCHLOR 90 ZINC PHENOXY / CHLORINATED RUBBER SYSTEMS

K5

12 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of a one-pack zinc-rich phenoxy primer and physically drying chlorinated rubber top coats. The systems are specially suited for site application.

Teknos Coating System Symbol	K5a	K5b
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	-
The coating system structure:	FZn(R)CR200/4- FeSa 2½	FZn(R)CR140/3- FeSa 2½
TEKNOZINC SP Zinc Rich Paint	1 x 40 µm	1 x 40 µm
TEKNOCHLOR PRIMER 3 Chlorinated Rubber Primer	1 x 80 µm	1 x 60 µm
TEKNOCHLOR 90 Chlorinated Rubber Top Coat	2 x 40 µm	1 x 40 µm
Total film thickness	200 µm	140 µm
Coating system VOC, g/m ²	250	180

Example of the coating system marking: K5b - FZn(R)CR140/3-FeSa 2½.

USAGE Structural steel exposed to atmospheric corrosion outdoors.

Teknos symbol	Typical use
K5a	Structural steelwork exposed to special atmospheric corrosion outdoors (in corrosivity category C4), e.g. industrial structures, bridges etc.
K5b	Structural steelwork exposed to atmospheric corrosion outdoors (in corrosivity category C2 and C3).

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

PTO

Application The surface to be painted must be dry. Stir the paints thoroughly before use. TEKNOZINC SP must be stirred frequently in the course of work to avoid sedimentation of the zinc dust. Apply by brush or airless spray.
Apply the chlorinated rubber paints by airless spray. Remove any spray mist before further coats are applied. If bubbling occurs, a thin misty layer of paint should first be applied, followed by a full coat.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. Remove dust and cleaning remnants. Touch up the prepared patches with chlorinated rubber primer and top coat to the original film thickness of the coating system.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC SP		TEKNOCHLOR PRIMER 3		TEKNOCHLOR 90	
Data Sheet No.	813		94		8	
Paint Type	zinc rich paint		chlorinated rubber primer		chlorinated rubber top coat	
Colours	grey		red, grey		Teknomix tinting	
Finish	matt		matt		gloss	
Thinner	TEKNOSOLV 9526, TEKNOSOLV 9560		TEKNOSOLV 9502, TEKNOSOLV 1639, TEKNOSOLV 1640		TEKNOSOLV 9502, TEKNOSOLV 1639, TEKNOSOLV 1640	
Methods of application	airless spray		airless spray		airless spray	
Airless spray nozzle	0.015 - 0.021"		0.015"		0.015"	
Application conditions						
- min. temperature	°C	-10	-10		-10	
- max. relative humidity	%	80	80		80	
Safety markings	See Material Safety Data Sheet		See Material Safety Data Sheet		See Material Safety Data Sheet	
Volume solids	%	40 ±2	42 ±2		42 ±2	
Total mass of solids	g/l	abt. 1700	abt. 800		abt. 760	
Volatile organic compound (VOC)	g/l	abt. 540	abt. 510		abt. 520	
Recommended film thickness						
- wet	µm	100	142 - 190		95	
- dry	µm	40	60 - 80		40	
Theoretical spreading rate	m ² /l	10.0	7.0 - 5.2		10.5	
Drying time, +23°C / 50 % RH						
- dust free (ISO 9117-3:2010)		(dry film 40 µm)	(dry film 60 µm)		(dry film 40 µm)	
- touch dry (DIN 53150:1995)		after ¼ h	after ½ h		after ½ h	
		after ½ h	after 2 h		after 2 h	
Overcoatable, 50 % RH		by itself or with TEKNOCHLOR PRIMER 3:	by itself or with TEKNOCHLOR 90:		by itself:	
		min.	max.	min.	max.	min.
	-10°C	after 6 h	-	-	-	-
	+5°C	after 3 h	-	after 8 h	-	after 8 h
	+23°C	after 1 h	-	after 3 h	-	after 4 h

EPITAR COAL TAR EPOXY SYSTEMS

K6

8 9.2.2012

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of a chemically curing, solvent-borne, two-pack epoxy coal tar reactive paint. The paint comes up to the specifications of the Swedish Standard SS 185205.

Teknos Coating System Symbol	K6a	K6b	K6c	K6d
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	A5M.08/C5-M/M	-	-
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	-	S7.16/C5-M/L	S8.07/lm1, lm2, lm3/M	S8.08/lm1, lm2, lm3/H
The coating system structure:	EPC200/2- ZnSaS	EPC300/3- FeSa 2½	EPC360/3- FeSa 2½	EPC500/4- FeSa 2½
EPITAR Coal Tar Epoxy	1 x 100 µm	1 x 100 µm	1 x 120 µm	1 x 125 µm
EPITAR Coal Tar Epoxy	1 x 100 µm	2 x 100 µm	2 x 120 µm	3 x 125 µm
Total film thickness	200 µm	300 µm	360 µm	500 µm
Coating system VOC, g/m ²	82	120	150	200

Example of the coating system marking: K6b - EN ISO 12944-5/ A5M.08(EPC300/3-FeSa 2½).

USAGE Protection for steel and zinc surfaces exposed to atmospheric corrosion. Protection for underground steel and zinc surfaces. Protection for submerged steel structures.

Teknos symbol	Typical use
K6a	Hot-dip-galvanized surfaces exposed to atmospheric corrosion in corrosivity categories C3 and C4.
K6b	Protection for steel structures in corrosivity category C5-M.
K6c	Subterranean and submerged constructions. Complicated structures. Corrosivity categories lm1, lm2 and lm3.
K6d	Subterranean and submerged structures when long service life and good durability is wanted for cathodically protected steel constructions. Corrosivity categories lm1, lm2 and lm3.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Aluminium surfaces: Treat the surfaces with PELTIPESU cleaning agent. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer, KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components thoroughly before use. Mix Base and Hardener carefully with each other in the proportions given on the label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up. Remove flaking paint from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints coat of the system to the original film thickness. If a uniform appearance is desired, the whole surface should be cleaned and then overcoated with the system's top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repaired completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½. Apply the primer and topcoat as for new work.

Technical Data

Paint	EPITAR	
Data Sheet	no.	16
Paint Type	Coal Tar Epoxy	
Colours	black and brown	
Finish	semi-matt	
Thinner	TEKNOSOLV 9506	
Methods of application	airless spray or brush	
Airless spray nozzle	0.018 - 0.026	
Application conditions	°C	+10
- min. temperature	%	80
- max. relative humidity	See Material Safety Data Sheet	
Safety markings	See Material Safety Data Sheet	
Volume solids	%	73 ±2
Total mass of solids	g/l	abt. 1000
Volatile organic compound (VOC)	g/l	abt. 300
Recommended film thickness	µm	136 - 171
- wet	µm	100 - 125
- dry	Theoretical spreading rate	
	m ² /l	7.3 – 5.8
Drying time, +23 °C / 50 % RH	(dry film 100 µm)	
- dust free (ISO 9117-3:2010)	after 3 h	
- touch dry (DIN 53150:1995)	after 8 h	
- fully cured	after 7 d	
Overcoatable, 50 % RH	by itself:	
	min.	max.
+10 °C	after 36 h	after 10 d
+23 °C	after 16 h	after 7 d

TEKNOPLAST HS 150 EPOXY SYSTEMS

19 16.1.2018

K7

	L	M	H
C2	O		Zn
C3		Zn	Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

Coating systems for anti-corrosive painting on steel and zinc surfaces. The high solid content TEKNOPLAST HS 150 epoxy paint is used in the systems.

STEEL SURFACES:

Teknos Coating System Symbol	K7k	K7g	K7h	K7d	K7e	K7j	K7f	K7n
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5.02/C5-I/H A5M.02/C5-M/H	A6.03/Im1-3/M
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	-	S2.15/C2/M S3.16/C3/L	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S3.19/C3/H S4.13/C4/M	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H	-
The coating system structure:	EP100/1-FeSa 2	EP120/1-FeSa 2½	EP160/2-FeSa 2½	EP200/2-FeSa 2½	EP240/3-FeSa 2½	EP280/3-FeSa 2½	EP320/3-FeSa 2½	EP380/4-FeSa 2½
TEKNOPLAST HS 150 Epoxy Paint	1 x 100 µm	1 x 120 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST HS 150 Epoxy Paint	-	-	1 x 80 µm	1 x 120 µm	2 x 80 µm	2 x 100 µm	2 x 120 µm	3 x 100 µm
Total film thickness	100 µm	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm	380 µm
Coating system VOC, g/m ²	43	51	69	86	100	120	140	163

ZINC SURFACES:

Teknos Coating System Symbol	K7a	K7I	K7i	K7b	K7c	K7m
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	A7.09/C2/H A7.09/C3/M	-	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.12/C4/H A7.12/C5-I/M A7.12/C5-M/M	A7.13/C5-I/H A7.13/C5-M/H
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S9.09/C2/H S9.09/C3/M	-	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	S9.11/C4/H S9.11/C5-I/L S9.11/C5-M/M	S9.12/C4/H S9.12/C5-I/M S9.12/C5-M/H	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EP80/1-ZnSaS	EP100/1-ZnSaS	EP120/2-ZnSaS	EP160/2-ZnSaS	EP240/3-ZnSaS	EP320/3-ZnSaS
TEKNOPLAST HS 150 Epoxy Paint	1 x 80 µm	1 x 100 µm	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST HS 150 Epoxy Paint	-	-	1 x 60 µm	1 x 80 µm	2 x 80 µm	2 x 120 µm
Total film thickness	80 µm	100 µm	120 µm	160 µm	240 µm	320 µm
Coating system VOC, g/m ²	35	43	51	69	100	140

Example of the coating system marking: K7a - EN ISO 12944-5/ A7.09(EP80/1-ZnSaS).

USAGE Protection for steel and zinc surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
STEEL SURFACES:	
K7g	Protection for steel structures in corrosivity categories C2 and C3.
K7h	Protection for steel structures in corrosivity categories C2 and C3.
K7d	Protection for steel structures in corrosivity categories C3, C4 and C5.
K7e	Protection for steel structures in corrosivity categories C3 and C4.
K7j	Protection for steel structures in corrosivity categories C4 and C5.
K7f	Protection for steel structures in corrosivity categories C4 and C5, when a long service life is required.
K7k	System in accordance with standard SFS 5873 for steel surfaces in corrosivity categories C1 - C2 (F20.04.) Preparation grade being St 2 it is equivalent to same standard's system R25.04.
K7n	Protection for steel structures in corrosivity categories Im1, Im2 and Im3.
ZINC SURFACES:	
K7a	Hot-dip-galvanized surfaces indoors and outdoors in corrosivity categories C2 and C3.
K7i	Hot-dip-galvanized surfaces indoors and outdoors in corrosivity categories C3, C4 and C5.
K7b	Hot-dip-galvanized surfaces outdoors in corrosivity categories C4 and C5.
K7c	Hot-dip-galvanized surfaces outdoors in corrosivity categories C4 and C5.
K7l	System in accordance with standard SFS 5873 for hot-dip-galvanized surfaces in corrosivity categories C1 - C2. Used on aluminium surfaces the same standard's systems correspond to F40.02 (EP100/1-AISaS).
K7m	Hot-dip-galvanized surfaces outdoors in corrosivity category C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast-cleaning to preparation grade Sa 2½ (ISO 8501-1) Sa 2 (K7k F20.04) or St 2 (K7k R25.04) (ISO 8501-1). Roughening the surface of thin plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AISaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the components thoroughly before use. Mix the Base and Hardener carefully with each other in the proportions given on the label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paint is given in the table below and in the data sheet of the product.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the damaged edges into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paint of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNOPLAST HS 150	
Data Sheet	No.	113
Paint Type	epoxy paint	
Colours	Teknomix-tinting system	
Finish	semi gloss	
Thinner	TEKNOSOLV 9506	
Methods of application	airless spray, brush	
Airless spray nozzle	0.013 - 0.021"	
Application conditions		
- min. temperature	°C	+10
- max. relative humidity	%	80
Safety markings	See Material Safety Data Sheet	
Volume solids	%	70 ±2 (ISO 3233:1988)
Total mass of solids	g/l	abt. 1050
Volatile organic compound (VOC)	g/l	abt. 300
Recommended film thickness		
- wet	µm	85 - 171
- dry	µm	60 - 120
Theoretical spreading rate	m ² /l	11.7 - 5.8
Drying time, +23°C / 50 % RH	(dry film 80 µm)	
- dust free (ISO 9117-3:2010)	after 30 min	
- touch dry (DIN 53150:1995)	after 5 h	
- fully cured	after 7 d	
Overcoatable, 50 % RH	by itself:	
	min.	max.*
+10°C	after 16 h	after 2 months
+23°C	after 5 h	after 1 month

* Maximum overcoating interval without roughening.

TEKNOPLAST HS 150 EPOXY SYSTEMS

13 12.4.2017

K8

	L	M	H
C2	O	O	O
C3	O	O	
C4			
C5	O		
Im*)	O		

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of chemically curing, solvent-borne two-pack paints. The primer is TEKNOZINC 90 SE Zinc Rich Epoxy Paint, which protects steel surfaces cathodically like zinc. For the top coat the high solids content TEKNOPLAST HS 150 epoxy paint is used.

Teknos Coating System Symbol	K8a	K8b	K8c	K8e	K8f
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	A5I.05/C5-I/H A5M.06/C5-M/H	A6.01/Im3/M *)
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S3.21/C3/H S4.19/C4/L	S3.22/C3/H S4.20/C4/M	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.23/C4/H S7.09C5-M/H	S8.01/Im3/M *)
The coating system structure:	EPZn(R)EP 160/2-FeSa 2½	EPZn(R)EP 200/3-FeSa 2½	EPZn(R)EP 240/3-FeSa 2½	EPZn(R)EP 320/4-FeSa 2½	EPZn(R)EP 360/4-FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPLAST HS 150 Epoxy Paint	1 x 120 µm	2 x 80 µm	2 x 100 µm	1 x 80 µm	2 x 100 µm
TEKNOPLAST HS 150 Epoxy Paint	-	-	-	2 x 100 µm	1 x 120 µm
Total film thickness	160 µm	200 µm	240 µm	320 µm	360 µm
Coating system VOC, g/m ²	85	100	120	150	170

Example of the coating system marking: K8a - EN ISO 12944-5/ A3.11(EPZn(R)EP160/2-FeSa 2½).

USAGE Protection for steel surfaces exposed to atmospheric corrosion. Protection for subterranean steel surfaces.

Teknos symbol	Typical use
K8a	Protection for steel structures in corrosivity categories C3 and C4.
K8b	Steel surfaces indoors subjected to splashes or other special stresses in corrosivity categories C3 and C4 (coating system according to standard SSG 1005 - GB40 TD160). The coating system is also used for protection of road and railway bridges subjected to special stresses (National Board of Roads and Waterways, instruction SILKO 3.352; coating system TIEL 4.2).
K8c	Protection for steel structures in corrosivity categories C4 and C5.
K8e	Protection for steel structures in corrosivity category C5.
K8f	Protection for subterranean steel surfaces in corrosivity categories Im3. *) Before using the coating system, ask for a separate work specification for the object in question from the manufacturer of the paint.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components thoroughly before use. Mix the Base and Hardener carefully with each other in the proportions given on the label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness. **NOTE!** TEKNOZINC 90 SE can only be painted on bare steel, not on top of old paint.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNOZINC 90 SE		TEKNOPLAST HS 150	
Data Sheet No.	15		113	
Paint Type	epoxy zinc rich paint		epoxy paint	
Colours	bluish grey		Teknomix-tinting system	
Finish	matt		semigloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506	
Methods of application	brush, airless spray		airless spray, brush	
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)		0.013 - 0.021"	
Application conditions				
- min. temperature °C	+10		+10	
- max. relative humidity %	80		80	
Safety markings	See Material Safety Sheet		See Material Safety Sheet	
Volume solids %	53 ±2 (ISO 3233:1988)		70 ±2 (ISO 3233:1988)	
Total mass of solids g/l	about 2100		about 1050	
Volatile organic compound (VOC) g/l	about 450		about 300	
Recommended film thickness				
- wet µm	75		114 - 171	
- dry µm	40		80 - 120	
Theoretical spreading rate m ² /l	13.2		8.8 - 5.8	
Drying time at +23°C / 50% RH				
- dust free, (ISO 9117-3:2010)	(dry film 40 µm)		(dry film 80 µm)	
- touch dry, (DIN 53150:1995)	after 5 min		after 30 min	
- fully cured	after 30 min		after 5 h	
	after 7 d		after 7 d	
Overcoatable, 50% RH	by itself or with TEKNOPLAST HS 150:		by itself:	
- structures in atmospheric exposure	min.	max.*	min.	max.*
+10°C	after 6 h	after 18 months	after 16 h	after 2 months
+23°C	after 1 h	after 18 months	after 5 h	after 1 month
- immersed structures			min.	max.*
+10°C	-		after 36 h	after 7 d
+23°C			after 16 h	after 7 d

* Maximum overcoating interval without roughening.

TEKNOCHLOR 90 ZINC EPOXY / CHLORINATED RUBBER SYSTEMS

K9

	L	M	H
C2	O	O	O
C3	O		
C4			
C5			

9 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. In the systems primer used is two-pack zinc rich epoxy paint and physically drying chlorinated rubber paints are used for top coating.

Teknos Coating System Symbol	K9a	K9b	K9c	K9d
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.12/C3/M A4.10/C4/L	A3.13/C3/H A4.11/C4/M	A4.12/C4/H	A5I.06/C5-I/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.23/C3/M S4.16/C4/L	S3.24/C3/H S4.17/C4/M	S4.18/C4/H	-
The coating system structure:	EPZn(R)CR160/3- FeSa 2½	EPZn(R)CR200/4- FeSa 2½	EPZn(R)CR240/4- FeSa 2½	EPZn(R)CR320/5- FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOCHLOR PRIMER 3 Chlorinated Rubber Primer	1 x 80 µm	2 x 60 µm	2 x 80 µm	2 x 80 µm
TEKNOCHLOR 90 Chlorinated Rubber Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm	2 x 60 µm
Total film thickness	160 µm	200 µm	240 µm	320 µm
Coating system VOC, g/m ²	180	230	280	380

Example of the coating system marking: K9a - EN ISO 12944-5/ A3.12(EPZn(R)CR160/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion.

Teknos symbol	Typical use
K9a	Structural steelwork exposed to atmospheric corrosion outdoors in corrosivity category C3 - C4.
K9b	Structural steelwork exposed to atmospheric corrosion outdoors in corrosivity category C4, e.g. industrial buildings, bridges etc. According to Standard SSG 1005 -GB40 TE160 system.
K9c	Structural steelwork outdoors in cellulose manufacturing in corrosivity category C4. According to the standard SSG 1005 - GB40 TE240 system.
K9d	Structural steelwork exposed to atmospheric corrosion in corrosivity category C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

PTO

Application The surface to be painted must be dry. Stir the components of the primer thoroughly before use. Mix the Base and Hardener carefully with each other in the proportion of 5 volume parts Base to 1 volume part Hardener. The paint must also be stirred in the course of work to avoid sedimentation of the zinc dust. Apply by brush or airless spray.
Apply the chlorinated rubber paints by airless spray. Remove any spray mist before further coats are applied. If bubbling occurs, a thin misty layer of paint should first be applied, followed by a full coat.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. Remove dust and cleaning remnants. Touch up the prepared patches with chlorinated rubber primer and top coat to the original film thickness of the coating system.
NOTE! TEKNOZINC 90 SE can only be painted on bare steel, not on top of old paint.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 90 SE		TEKNOCHLOR PRIMER 3		TEKNOCHLOR 90		
Data Sheet No.	15		94		8		
Paint Type	zinc rich epoxy paint		chlorinated rubber primer		chlorinated rubber top coat		
Colours	bluish grey		red, grey		Teknomix tinting		
Finish	matt		matt		gloss		
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9502, TEKNOSOLV 1639, TEKNOSOLV 1640		TEKNOSOLV 9502, TEKNOSOLV 1639, TEKNOSOLV 1640		
Methods of application	airless spray		airless spray		airless spray		
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)		0.015"		0.015"		
Application conditions	°C						
- min. temperature	+10		-10		-10		
- max. relative humidity	%	80	%	80	%	80	
Safety markings	See Material Safety Sheet		See Material Safety Sheet		See Material Safety Sheet		
Volume solids	%	53 ±2 (ISO 3233:1988)	42 ±2		42 ±2		
Total mass of solids	g/l	abt. 2100	abt. 800		abt. 760		
Volatile organic compound (VOC)	g/l	abt. 450	abt. 510		abt. 520		
Recommended film thickness							
- wet	µm	75	142 - 190		95		
- dry	µm	40	60 - 80		40		
Theoretical spreading rate	m²/l	13.2	7.0 - 5.2		10.5		
Drying time at +23°C / 50% RH	(dry film 40 µm)		(dry film 60 µm)		(dry film 40 µm)		
- dust free, (ISO 9117-3:2010)	after 5 min		after ½ h		after ½ h		
- touch dry, (DIN 53150:1995)	after 30 min		after 2 h		after 2 h		
Overcoatable, 50% RH	by itself:		by itself or with TEKNOCHLOR 90:		by itself:		
		min.	max.*	min	max.*	min	max.*
+5° C		-	-	after 8 h	-	after 8 h	-
+10° C		after 6 h	after 18 months	-	-	-	-
+23° C		after 1 h	after 18 months	after 3 h	-	after 4 h	-
		TEKNOCHLOR PRIMER 3:					
		min.	max.*				
+10° C		after 6 h	after 3 months				
+23° C		after 1 h	after 3 months				

* Maximum overcoating interval without roughening.

TEKNOLAC COMBI 50 / TEKNOLAC 0191 ALKYD SYSTEMS

K10

	L	M	H
C2			
C3			
C4			
C5			

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Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of alkyd paints drying by oxidation. As the paints are quick drying therefore are particularly suitable for use in paint shop application. The topcoat is either gloss or semigloss finish.

Teknos Coating System Symbol	K10a	K10b	K10c
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.01/C2/L	A2.02/C2/M A3.01/C3/L	A2.03/C2/H A3.02/C3/M
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.02/C2/M	S2.04/C2/M S3.02/C3/L	S2.06/C2/H S3.04/C3/M
The coating system structure:	AK80/2- FeSa 2½	AK120/2- FeSa 2½	AK160/3- FeSa 2½
TEKNOLAC PRIMER 0168-00 Alkyd Primer	1 x 40 µm	1 x 80 µm	1 x 80 µm
TEKNOLAC COMBI 50 Alkyd Paint or TEKNOLAC 0191 Alkyd Top Coat	1 x 40 µm	1 x 40 µm	2 x 40 µm
Total film thickness	80 µm	120 µm	160 µm
Coating system VOC, g/m ² With top coat TEKNOLAC COMBI 50	87	126	174

Example of the coating system marking: K10a - EN ISO 12944-5/ A2.01(AK80/2-FeSa 2½).

Usage Structural steel exposed to atmospheric corrosion indoors and outdoors.

Teknos symbol	Typical use
K10a	Protection for steel structures indoors in corrosivity categories C1 and C2.
K10b	Protection for steel structures outdoors in corrosivity categories C2 and C3.
K10c	Protection for steel structures outdoors in corrosivity categories C2 and C3.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO PVB Prefabrication Primer, KORRO E Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primers.

Application Stir the paints thoroughly before use.
Apply the paints to a dry, dust-free to the required film thickness.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes painting the whole surface with topcoat, matt down glossy old paint coats and remove all dust and grindings. Touch up the prepared patches with the primer and the topcoat of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNOLAC PRIMER 0168-00	TEKNOLAC COMBI 50	TEKNOLAC 0191			
Data Sheet no.	1098	874	1778			
Paint Type	alkyd primer	alkyd paint	alkyd top coat			
Colours	grey, reddish brown, yellow, white and black	Teknomix tinting, Standard colours by agreement	Teknomix tinting, Standard colours by agreement			
Finish	full-matt	semigloss	gloss			
Thinner	TEKNOSOLV 9502, TEKNOSOLV 1639	TEKNOSOLV 9502, TEKNOSOLV 1639	TEKNOSOLV 1639, TEKNOSOLV 1640			
Methods of application	airless spray, brush	airless, electrostatic or conventional spray, brush	airless, electrostatic or conventional spray, brush			
Airless spray nozzle	0.013 - 0.018"	0.013 - 0.015"	0,013 - 0,018"			
Application conditions						
- min. temperature °C	+5	+5	+5			
- max. relative humidity %	80	80	80			
Safety markings	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet			
Volume solids %	48 ±2	45 ±2 (ISO 3233:1988)	46 ±2			
Total mass of solids g/l	about 830	about 610	about 600			
Volatile organic compound (VOC) g/l	about 470	about 520	about 500			
Recommended film thickness						
- wet µm	83 - 166	88 - 177	40 - 60			
- dry µm	40 - 80	40 - 80	86 - 130			
Theoretical spreading rate m ² /l	12.0 - 6.0	11.2 - 5.6	11.5 - 7.7			
Drying time at +23°C / 50% RH	(dry film 40 µm)	(dry film 40 µm)	(dry film 40 µm)			
- dust free, (ISO 9117-3:2010)	after 20 min	after ¼ h	-			
- touch dry, (DIN 53150:1995)	after 20 min	after 1 h	after 45 min			
- forced drying 80°C	after 15 min	-	-			
Overcoatable, 50% RH	by itself, the TEKNOLAC series or the TEKNOLAC COMBI series:	by itself:	by itself:			
	min.	max.	min.	max.	min.	max.
+5°C	after 4 h	-	after 3 h	-	before 8 h or only after at least 12 d	-
+23°C	after 40 min	-	after 1 h	-	before 4 h or only after at least 4 d	-

TEKNOSYNT COMBI 50 / TEKNOSYNT 90 ALKYD SYSTEMS

K12

	L	M	H
C2			
C3			
C4			
C5			

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Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of alkyd paints drying by oxidation. TEKNOSYNT PRIMER 3 and TEKNOSYNT 90 can also be dried at elevated temperatures (below +80°C). The systems are suitable for on-site painting.

Teknos Coating System Symbol	K12a	K12e	K12b	K12c	K12d
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.01/C2/L	-	A2.02/C2/M A3.01/C3/L	A2.03/C2/H A3.02/C3/M	-
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.02/C2/M	-	S2.04/C2/M S3.02/C3/L	S2.06/C2/H S3.04/C3/M	S2.05/C2/M S3.03/C3/L
The coating system structure:	AK80/2- FeSa 2½	AK80/2- FeSt 2	AK120/2- FeSa 2½	AK160/3- FeSa 2½	AK160/4- FeSt 2
TEKNOSYNT PRIMER 3 Alkyd Primer	1 x 40 µm	1 x 40 µm	1 x 80 µm	1 x 80 µm	2 x 40 µm *)
TEKNOSYNT COMBI 50 Alkyd Paint or TEKNOSYNT 90 Alkyd Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm	2 x 40 µm	2 x 40 µm
Total film thickness	80 µm	80 µm	120 µm	160 µm	160 µm
Coating system VOC, g/m ² (by TEKNOSYNT PRIMER 3 and TEKNOSYNT COMBI 50 paints)	74	74	120	150	150

*) 1st coat: TEKNOSYNT PRIMER 3 red, applied by brush

Example of the coating system marking: K12a - EN ISO 12944-5/ A2.01(AK80/2-FeSa 2½).

Usage Structural steel exposed to atmospheric corrosion indoors and outdoors.

Teknos symbol	Typical use
K12a	Machinery and equipment in corrosivity category C1. Preparation grade being Sa 2 the system is equivalent to system F20.01 in standard SFS 5873 in corrosivity categories C1 - C2.
K12b	Machinery and equipment in corrosivity category C2.
K12c	Structural steelwork outdoors in corrosivity category C3.
K12d	Structural steelwork outdoors in corrosivity category C2.
K12e	System in accordance with standard SFS 5873 for steel surfaces in corrosivity categories C1 - C2 (system R25.01).

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO PVB Prefabrication Primer, KORRO E Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

PTO

Application Stir the paints thoroughly before use.
Apply the paints to a dry, dust-free to the required film thickness.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes painting the whole surface with topcoat, matt down glossy old paint coats and remove all dust and grindings. Touch up the prepared patches with the primer and the topcoat of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNOSYNT PRIMER 3	TEKNOSYNT COMBI 50	TEKNOSYNT 90				
Data Sheet no.	335	134	336				
Paint Type	thixotropic alkyd primer	alkyd paint	alkyd top coat				
Pigmentation	lead and chromate free anticorrosive pigments	lead and chromate free anticorrosive pigments	weather resistant pigments				
Colours	yellow, grey, red and black	Teknomix tinting, Standard colours by agreement	Teknomix tinting				
Finish	semi-matt	semi-matt	full gloss				
Thinner	TEKNOSOLV 9507, TEKNOSOLV 1621	TEKNOSOLV 9507, TEKNOSOLV 1621	TEKNOSOLV 9507, TEKNOSOLV 1621				
Methods of application	brush, airless spray	airless, electrostatic or conventional spray, brush	airless, electrostatic or conventional spray, brush				
Airless spray nozzle	0.015 - 0.018"	0.015- 0.018"	0.009 - 0.015"				
Application conditions - min. temperature °C - max. relative humidity %	+5 80	+5 80	+5 80				
Safety markings	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet				
Volume solids %	45 ±2	50 ±2	45 ±2				
Total mass of solids g/l	abt. 740	abt. 750	abt. 470				
Volatile organic compound (VOC) g/l	abt. 480	abt. 400	abt. 480				
Recommended film thickness - wet µm - dry µm	88 - 177 40 - 80	80 40	88 40				
Theoretical spreading rate m ² /l	11.2 - 5.6	12.5 - 6.2	11.2				
Drying time, +23°C / 50 % RH - dust free (ISO 9117-3:2010) - touch dry (DIN 53150:1995)	(dry film 40 µm) after 1 h after 2 h	(dry film 40 µm) after 1 h after 3 h	(dry film 40 µm) after 30 min after 3 h				
Overcoatable, 50 % RH	by itself, TEKNOSYNT COMBI 50 or TEKNOSYNT 90	by itself:	by itself:				
	min.	max.	min.	max.	min.	max.	
	+5°C	after 8 h		after 18 h	-	after 10 h	-
	+23°C	after 3 h	-	after 6 h	-	after 10 h	-
		Increased temperature will speed up the drying process considerably.		-		Increased temperature will speed up the drying process considerably.	

TEKNOCRYL 90 ZINC EPOXY / ACRYLIC SYSTEMS

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K13

	L	M	H
C2	O	O	O
C3	O		
C4			
C5			

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. For the primer two-pack zinc rich epoxy paint and for the finishing coats physically drying acryl paints are used.

Teknos Coating System Symbol	K13a	K13b	K13c
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	A3.12/C3/M A4.10/C4/L	A3.13/C3/H A4.11/C4/M	A4.12/C4/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.23/C3/M S4.16/C4/L	S3.24/C3/H S4.17/C4/M	S4.18/C4/H
The coating system structure:	EPZn(R)AY160/3- FeSa 2½	EPZn(R)AY200/4- FeSa 2½	EPZn(R)AY240/4- FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOCRYL PRIMER 3 Acrylic Primer	1 x 80 µm	2 x 60 µm	2 x 80 µm
TEKNOCRYL 90 Acrylic Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	160 µm	200 µm	240 µm
Coating System VOC, g/m ²	190	240	290

Example of the coating system's marking: K13a - EN ISO 12944-5/ A3.12(EPZn(R)AY160/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion outdoors.

Teknos symbol	Typical use
K13a	Structural steelwork outdoors in corrosivity categories C3 - C4.
K13b	Structural steelwork outdoors in corrosivity categories C3 - C4.
K13c	Structural steelwork outdoors in corrosivity categories C4.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO SE Epoxy Prefabrication Primer, KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the paint thoroughly before use. Apply the paints to a dry, dust-free surface to the required film thickness.

The paint's technical data is given in the table below and in the product's own data sheet.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes painting the whole surface with a top coat, matt down glossy old paint coats and remove all dust and grindings. Touch-up the prepared patches with the primer and the top coat of the system to the original film thickness.

NOTE! TEKNOZINC 90 SE can only be painted on bare steel, not on top of old paint.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNOZINC 90 SE		TEKNOCRYL PRIMER 3		TEKNOCRYL 90		
Data Sheet No.	15		615		614		
Paint Type	zinc rich epoxy paint		acrylic primer		acrylic top coat		
Colours	bluish grey		grey and white		Teknomix tinting		
Finish	matt		Matt		gloss		
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9502, TEKNOSOLV 1639		TEKNOSOLV 9502, TEKNOSOLV 1639		
Methods of application	airless spray		airless spray		airless spray, brush		
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)		0.015"		0.013"		
Application conditions							
- min. temperature	C°	+10	0		0		
- max. relative humidity	%	80	80		80		
Safety markings	See Material Safety Sheet		See Material Safety Sheet		See Material Safety Sheet		
Volume solids	%	53 ±2 (ISO 3233:1988)	43 ±2		35 ±2		
Total mass of solids	g/l	abt. 2100	abt. 760		abt. 470		
Volatile organic compound (VOC)	g/l	abt. 450	abt. 500		abt. 590		
Recommended film thickness							
- wet	µm	75	139 - 186		114		
- dry	µm	40	60 - 80		40		
Theoretical spreading rate	m²/l	13.2	7.2 - 5.4		8.8		
Drying time at +23°C / 50% RH		(dry film 40 µm)	(dry film 60 µm)		(dry film 40 µm)		
- dust free, (ISO 9117-3:2010)		after 5 min	after ½ h		after 1 h		
- touch dry, (DIN 53150:1995)		after 30 min	after 1 h		after 2 h		
Overcoatable, 50% RH		by itself:	by itself or with TEKNOCRYL 90:		by itself:		
		min.	max.*	min.	max.*	min.	max.*
0°C		-		after 6 h	-	after 8 h	-
+10°C		after 6 h	after 18 months	-	-	-	-
+23°C		after 1 h	after 18 months	after 3 h	-	after 4 h	-
		with TEKNOCRYL PRIMER 3:					
		min.	max.*				
+10°C		after 6 h	after 3 months				
+23°C		after 1 h	after 3 months				

* Maximum overcoating interval without roughening.

TEKNOPOX AQUA COMBI 0360 EPOXY SYSTEMS

K16

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Protective coating systems for steel and zinc-coated surfaces. The systems consist of chemically curing, water-borne two pack epoxy reactive paints. Either semigloss TEKNOPOX AQUA COMBI 0360-04 or gloss TEKNOPOX AQUA COMBI 0360-08 can be used as top coat.

Teknos Coating System Symbol	K16a	K16b	K16c	K16d	K16e	K16f
EN ISO 12944-5 (2007) symbol/corrosivity category/durability range	-	-	-	-	-	-
The coating system structure:	EP120/2-ZnSaS	EP160/2-ZnSaS	EP120/2-FeSa 2½	EP160/3-FeSa 2½	EP200/3-FeSa 2½	EP240/4-FeSa 2½
TEKNOPOX AQUA PRIMER 3 Epoxy Primer	-	1 x 80 µm	-	1 x 80 µm	2 x 80 µm	2 x 80 µm
TEKNOPOX AQUA COMBI 0360 Epoxy Paint	2 x 60 µm	1 x 80 µm	2 x 60 µm	1 x 80 µm	1 x 40 µm	1 x 80 µm
Total film thickness	120 µm	160 µm	120 µm	160 µm	200 µm	240 µm
Coating system VOC, g/m ²	9.2	13.2	9.2	13.2	17.2	20.3

Example of the coating system marking: K16a - EP120/2-ZnSaS.

Usage Protection for steel and zinc surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
K16a	Hot-dip-galvanized surfaces exposed to mechanical abrasion, in corrosivity categories C2 and C3.
K16b	Hot-dip-galvanized surfaces exposed to mechanical abrasion, in corrosivity categories C3 and C4.
K16c	Protection for steel surfaces in corrosivity categories C2 and C3.
K16d	Protection for steel surfaces in corrosivity categories C2 and C3.
K16e	Protection for steel surfaces in corrosivity category C3.
K16f	Protection for steel surfaces in corrosivity categories C3 and C4.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO PVB Prefabrication Primer, KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Before painting the mixing and spraying equipment must be carefully rinsed with clean water. After the painting the equipment is washed first with water and then with solvent.

Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray or air-assisted low-pressure spray. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

Maintenance

The technical data of the paints are given in the table below and in the data sheets of the products.

Touch-up: Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is desired, the whole surface should be cleaned and then overcoated with the system's top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOPOX AQUA PRIMER 3	TEKNOPOX AQUA COMBI 0360
Data Sheet	No.	621	1185
Paint Type		water-borne two pack epoxy primer	water-borne two pack epoxy paint
Colours		grey and red	Teknomix tinting
Finish		semimatt	0360-04: semigloss 0360-08: gloss
Thinner		water	water
Methods of application		airless spray	airless spray or brush
Airless spray nozzle		0.013 - 0.018"	0.011 – 0.015"
Application conditions			
- min. temperature	°C	+10	+10
- relative humidity	%	30 - 70	30 - 70
Safety markings		See Safety Data Sheet	See Safety Data Sheet
Volume solids	%	45 ±2	43 ±2
Total mass of solids	g/l	about 680	about 520
Volatile organic compound (VOC)	g/l	about 40	about 33
Recommended film thickness			
- wet	µm	133 - 178	186
- dry	µm	60 - 80	80
Theoretical spreading rate	m ² /l	7.5 - 5.6	5,4
Drying time, +23°C / 50 % RH		(dry film 60 µm) with TEKNOPOX AQUA HARDENER 0300 / with TEKNOPOX AQUA HARDENER 0300-02: after 2 h / after 50 min after 10 h / after 5 h	(dry film 80 µm) with TEKNOPOX AQUA HARDENER 0300 / with TEKNOPOX AQUA HARDENER 0300-02: after 1 h / after 40 min after 10 h / after 5 h
- dust free, (ISO 9117-3:2010)			
- touch dry, (DIN 53150:1995)			
Overcoatable, 50 % RH		by itself:	by itself:
		min.	max.*
+15°C		after 1 d	after 6 months
+23°C		after 4 h	after 6 months
		with TEKNOPOX AQUA COMBI 0360	
		min.	max.*
+15°C		after 2 d	after 1 month
+23°C		after 4 h	after 1 month

* Maximum overcoating interval without roughening.

INERTA 50 EPOXY SYSTEMS

12 15.5.2017

K17

	L	M	H
C2	O		
C3			
C4			
C5	O	O	

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of chemically curing, solvent-borne two pack epoxy reactive paints. For the top coat gloss INERTA 50 Epoxy Paint is used.

Teknos

Coating System Symbol	K17a	K17b	K17c	K17g	K17d	K17f	K17h	K17e
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	-	-	A5I.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15/C2/M S3.16/C3/L	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S3.19/C3/H S4.13/C4/M	S4.14/C4/H S6.03/C5-I/H	-	-	S4.15/C4/H S6.04/C5-I/H S7.04/C5/M/H
The coating system structure:	EP120/2- FeSa 2½	EP160/3- FeSa 2½	EP200/3- FeSa 2½	EP240/4- FeSa 2½	EP280/4- FeSa 2½	EP300/4- FeSa 2½	EP300/3- FeSa 2½	EP320/4- FeSa 2½
INERTA PRIMER 3 Epoxy Primer	1 x 80 µm	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 70 µm	1 x 125 µm	1 x 80 µm
INERTA 51 Epoxy Paint	-	1 x 60 µm	1 x 80 µm	2 x 60 µm	2 x 80 µm	2 x 90 µm	1 x 125 µm	2 x 100 µm
INERTA 50 Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 50 µm	1 x 50 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	300 µm	300 µm	320 µm
Coating system VOC, g/m ²	110	150	180	220	250	270	270	290

Example of the coating system marking: K17a - EN ISO 12944-5/A2.06(EP120/2-FeSa2½).

USAGE

Protection for steel surfaces exposed to atmospheric corrosion. Protection for steel surfaces subjected to chemical and mechanical stress.

Teknos symbol	Typical use
K17a	Protection for steel surfaces in corrosivity category C2 and C3.
K17b	Protection for steel surfaces in corrosivity category C2 and C3.
K17c	Machinery, tanks, piping and other internal and external steelwork exposed to splashes and gases in the processing industry, corrosivity category C3 and C4.
K17d	Protection for steel surfaces in corrosivity category C4.
K17e	Processing industry's structures and equipment outdoors and indoors in corrosivity category C4 and C5.
K17f	Insides of tanks and immersed steelwork. This system is resistant to water, aqueous solutions of chemicals, petrol, aviation petrol, solvents and oils.
K17g	Protection for steel surfaces in corrosivity category C3 and C4.
K17h	System in accordance with standard SFS 5873 for steel surfaces immersed into fuel or oil products (system F22.04).

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer.

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is desired, the whole surface should be cleaned and then overcoated with the system's top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		INERTA PRIMER 3	INERTA 51	INERTA 50		
Data Sheet	No.	112	52	10		
Paint Type		two pack epoxy primer	two pack epoxy paint	two pack epoxy paint		
Colours		red, yellow	white, grey	Teknomix tinting system		
Finish		semi-matt	semi-matt	gloss		
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506		
Methods of application		airless spray	airless spray	airless spray, brush		
Airless spray nozzle		0.017 - 0.021"	0.017 - 0.021"	0.011 - 0.015"		
Application conditions						
- min. temperature	°C	+10	+10	+10		
- max. relative humidity	%	80	80	80		
Safety markings		See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet		
Volume solids	%	50 ±2	50 ±2	48 ±2		
Total mass of solids	g/l	abt. 990	abt. 970	abt. 700		
Volatile organic compound (VOC)	g/l	abt. 440	abt. 440	abt. 480		
Recommended film thickness						
- wet	µm	125 - 250	120 - 250	83 - 104		
- dry	µm	60 - 125	60 - 125	40 - 50		
Theoretical spreading rate	m ² /l	8.3 - 4.0	8.3 - 4.4	12.0 - 9.6		
Drying time, +23°C / 50 % RH		(dry film 60 µm)	(dry film 50 µm)	(dry film 40 µm)		
- dust free (ISO 9117-3:2010)		after 1 h	after 1 h	after 1 h		
- touch dry (DIN 53150:1995)		after 5 h	after 5 h	after 6 h		
Overcoatable, 50 % RH		by itself or with INERTA 51:	by itself or with INERTA 50:	by itself:		
- structures in atmospheric exposure		min.	max.*	min.	max.*	min.
		after 12 h	after 6 months	after 12 h	after 6 months	after 24 h
		after 4 h	after 6 months	after 4 h	after 6 months	after 12 h
		after 12 h	after 7 d	after 12 h	after 7 d	after 12 h
		after 12 h	after 7 d	after 12 h	after 7 d	after 12 h
- immersed structures		by itself or with INERTA 51:	by itself or with INERTA 50:	by itself:		
		min.	max.*	min.	max.*	min.
		after 36 h	after 7 d	after 36 h	after 7 d	after 36 h
		after 12 h	after 7 d	after 12 h	after 7 d	after 12 h

* Maximum overcoating interval without roughening.

TEKNOPLAST 50 / 90 EPOXY SYSTEMS

13 12.4.2017

K18

	L	M	H
C2	O		
C3			Zn
C4		Zn	Zn
C5	Zn	Zn	Zn

Coating systems for anti-corrosive painting on steel and zinc surfaces. The systems consist of chemically curing, solvent-borne two pack epoxy reactive paints. For the top coat semigloss TEKNOPLAST 50 or gloss TEKNOPLAST 90 is used.

STEEL SURFACES:

Teknos Coating System Symbol	K18a	K18b	K18c	K18d	K18e	K18f
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15/C2/M S3.16/C3/L	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S3.19/C3/H S4.13/C4/M	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EP120/2- FeSa 2½	EP160/2- FeSa 2½	EP200/3- FeSa 2½	EP240/3- FeSa 2½	EP280/4- FeSa 2½	EP320/4- FeSa 2½
TEKNOPLAST PRIMER 3 Epoxy Primer	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 3 Epoxy Primer	-	-	1 x 60 µm	1 x 80 µm	2 x 70 µm	2 x 90 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Top Coat	1 x 60 µm	1 x 80 µm	1 x 60 µm	1 x 80 µm	1 x 60 µm	1 x 60 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ²	99	130	170	200	230	270

ZINC AND ALUMINIUM SURFACES:

Teknos Coating System Symbol	K18g	K18h	K18i	K18j	K18k	K18l
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5- M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5- M/M	-	A7.12/C4/H A7.12/C5-I/M A7.12/C5- M/M	-	A7.13/C4/H A7.13/C5-I/H A7.13/C5- M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	S9.11/C4/H S9.11/C5-I/L S9.11/C5- M/M	-	S9.12/C4/H S9.12/C5-I/M C9.12/C5- M/H	-	S9.13/C4/H S9.13/C5-I/M S9.13/C5- M/H
The coating system structure:	EP120/2- ZnSaS	EP160/2- ZnSaS	EP200/3- ZnSaS	EP240/3- ZnSaS	EP240/3- ZnSaS	EP320/4- ZnSaS
TEKNOPLAST PRIMER 3 Epoxy Primer	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 90 µm	1 x 80 µm
TEKNOPLAST PRIMER 3 Epoxy Primer	-	-	1 x 80 µm	1 x 80 µm	1 x 90 µm	2 x 80 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Top Coat	1 x 60 µm	1 x 80 µm	1 x 40 µm	1 x 80 µm	1 x 60 µm	1 x 80 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	240 µm	320 µm
Coating system VOC, g/m ²	99	130	160	200	200	260

Example of the coating system marking: K18a - EN ISO 12944-5/A2.06(EP120/2- FeSa 2½).

USAGE

Protection for steel and zinc-coated surfaces exposed to atmospheric corrosion. Protection for steel surfaces subjected to chemical and mechanical abrasion.

Teknos symbol	Typical use
STEEL SURFACES:	
K18a	Steel structures under minor mechanical abrasion, such as building frames in corrosivity categories C2 and C3.
K18b	Protecting steel surfaces in corrosivity categories C2 and C3.
K18c	Structural steel exposed to heavy abrasion. Corrosivity categories C3, C4 and C5.
K18d	Suitable for steel surfaces exposed to special stresses. Corresponds to standards DIN 55928-T05-6-30.2 and BS 5493:1977; SK2. Corrosivity categories C3 and C4.
K18e	Protection for steel surfaces in corrosivity categories C4 and C5.
K18f	Industrial steel structures exposed to exceptionally severe stress. Corrosivity categories C4 and C5.
ZINC SURFACES:	
K18g	Protection for hot-dip-galvanized surfaces indoors and outdoors in corrosivity categories C3, C4 and C5. Also system in accordance with standard SFS 5873 for corrosivity categories C3 and C4 (system F30.05). Used on aluminium surfaces the same standard's corresponding system to F40.05 (EP120/2-AISaS).
K18h	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.
K18i	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.
K18j	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.
K18k	System in accordance with standard SFS 5873 for hot-dip-galvanized surfaces in corrosivity categories C5-I and C5-M (system F30.07).
K18l	System in accordance with standard SFS 5873 for aluminium surfaces in corrosivity categories C5-I and C5-M (system F40.07).

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AISaS) or sanding.

Old painted surfaces suitable for overcoating: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is desired, the whole surface should be cleaned and then overcoated with the system's top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOPLAST PRIMER 3		TEKNOPLAST 50		TEKNOPLAST 90	
Data Sheet No.	442		443		857	
Paint Type	two pack epoxy primer		two pack epoxy paint		two pack epoxy paint	
Colours	grey, red, yellow , white		Teknomix-tinting system		Teknomix-tinting system	
Finish	semi-matt		semigloss		gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9506	
Methods of application	airless spray		airless spray		airless spray	
Airless spray nozzle	0.013 - 0.019"		0.013 - 0.019"		0.011 - 0.013"	
Application conditions						
- min. temperature °C	+10		+10		+10	
- max. relative humidity %	80		80		80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet	
Volume solids %	53 ±2 (ISO 3233:1988)		53 ±2		53 ±2	
Total mass of solids g/l	abt. 910		abt. 800		abt. 760	
Volatile organic compound (VOC) g/l	abt. 440		abt. 430		abt. 430	
Recommended film thickness						
- wet µm	113 - 169		75 - 150		75 - 150	
- dry µm	60 - 90		40 - 80		40 - 80	
Theoretical spreading rate m ² /l	8.8 - 5.9		13.2 - 6.6		13.2 - 6.6	
Drying time, +23°C / 50 % RH						
- dust free (ISO 9117-3:2010)	(dry film 60 µm)		(dry film 60 µm)		(dry film 60 µm)	
- touch dry (DIN 53150:1995)	after 1 h		after 1 h		after 1 h	
	after 4 h		after 4 h		after 4 h	
Overcoatable, 50 % RH	by itself:		by itself:		by itself:	
	min.	max.*	min.	max.*	min.	max.*
+10° C	after 6 h	after 18 months	after 6 h	after 1 month	after 6 h	after 1 month
+23° C	after 2 h	after 18 months	after 2 h	after 1 month	after 2 h	after 1 month
	TEKNOPLAST 50:					
	min.	max.*				
+10° C	after 6 h	after 6 months				
+23° C	after 2 h	after 6 months				

* Maximum overcoating interval without roughening.

TEKNOPLAST 50 / 90 EPOXY SYSTEMS

10 12.4.2017

K19

	L	M	H
C2	O	O	O
C3	O	O	
C4			
C5	O		

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of chemically curing, solvent-borne two pack epoxy reactive paints. For the primer is used TEKNOZINC 90 SE, which protects the steel cathodically like zincing. Semigloss TEKNOPLAST 50 or gloss TEKNOPLAST 90 can be used for the top coat.

Teknos Coating System Symbol	K19a	K19b	K19c	K19d	K19e
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	-	A5I.05/C5-I/H A5M.06/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.21/C3/H S4.19/C4/L S6.05/C5-I/M	S3.22/C3/H S4.20/C4/M	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EP 160/3-FeSa 2½	EPZn(R)EP 200/3-FeSa 2½	EPZn(R)EP 240/4-FeSa 2½	EPZn(R)EP 280/4-FeSa 2½	EPZn(R)EP 320/4-FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPLAST PRIMER 3 Epoxy Primer	1 x 60 µm	1 x 80 µm	2 x 70 µm	2 x 80 µm	2 x 100 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Top Coat	1 x 60 µm	1 x 80 µm	1 x 60 µm	1 x 80 µm	1 x 80 µm
Total film thickness	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ²	130	160	200	230	265

Example of the coating system marking: K19a - EN ISO 12944-5/ A3.11(EPZn(R)EP160/3-FeSa 2½).

Usage Protection for steel surfaces exposed to atmospheric corrosion. Protection for steel surfaces subjected to humidity and splashes.

Teknos symbol	Typical use
K19a	Protection for steel surfaces in corrosivity categories C3 and C4.
K19b	Steel surfaces indoors and outdoors subjected to chemical splashes in corrosivity categories C3 and C4.
K19c	The wet end of a paper machine and steel structures in corrosivity categories C4 and C5.
K19d	Wet end of paper machines (system corresponding to standard SSG 1005- GB40 GA160 TA80), also steel structures in corrosivity category C4.
K19e	Protection for steel surfaces in corrosivity category C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components thoroughly before use. Mix the Base and Hardener carefully with each other in proportions given on the label. Mix only an amount sufficient to be used within the pot life of the mixture.
Apply preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up. Remove flaking paint from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints coat of the system to the original film thickness.
NOTE! TEKNOZINC 90 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repaired completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½. Apply the primer and topcoat as for new work.

Technical Data

Paint	TEKNOZINC 90 SE	TEKNOPLAST PRIMER 3	TEKNOPLAST 50	TEKNOPLAST 90					
Data Sheet no.	15	442	443	857					
Paint Type	epoxy zinc rich paint	two pack epoxy primer	two pack epoxy paint	two pack epoxy paint					
Colours	bluish grey	grey, red, yellow, white	Teknomix-tinting system	Teknomix-tinting system					
Finish	matt	semi matt	semi-gloss	gloss					
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506					
Methods of application	brush or airless spray	airless spray	airless spray	airless spray					
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)	0.013 - 0.019"	0.013 - 0.019"	0.011 - 0.013"					
Application conditions									
- min. temperature °C	+10	+10	+10	+10					
- max. relative humidity %	80	80	80	80					
Safety markings	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet					
Volume solids %	53 ±2 (ISO 3233:1988)	53 ±2 (ISO 3233:1988)	53 ±2	53 ±2					
Total mass of solids g/l	about 2100	about 910	about 800	about 760					
Volatile organic compound (VOC) g/l	about 450	about 440	about 430	about 430					
Recommended film thickness									
- wet µm	75	113 - 190	113 - 150	115 - 150					
- dry µm	40	60 - 100	60 - 80	60 - 80					
Theoretical spreading rate m ² /l	13.2	8.8 - 5.3	8.8 - 6.6	8.8 - 6.6					
Drying time at +23°C / 50% RH	(dry film 40 µm)	(dry film 60 µm)	(dry film 60 µm)	(dry film 60 µm)					
- dust free, (ISO 9117-3:2010)	after 5 min	after 1 h	after 1 h	after 1 h					
- touch dry, (DIN 53150:1995)	after 30 min	after 4 h	after 4 h	after 4 h					
Overcoatable, 50% RH	by itself:	by itself:	by itself:	by itself:					
	min.	max.*	min.	max.*	min.	max.*	min.	max.*	
	+10°C	after 6 h	after 18 months	after 6 h	after 18 months	after 6 h	after 1 month	after 6 h	after 1 month
	+23°C	after 1 h	after 18 months	after 2 h	after 18 months	after 2 h	after 1 month	after 2 h	after 1 month
	with TEKNOPLAST PRIMER 3:		with TEKNOPLAST 50:						
	+10°C	min.	max.*	min.	max.*				
	+23°C	after 6 h	after 3 months	after 6 h	after 6 months				
	after 1 h	after 3 months	after 2 h	after 6 months					

* Maximum overcoating interval without roughening.

TEKNOPLAST 50 / 90 EPOXY SYSTEMS

K22

11 12.4.2017

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of chemically curing, solvent-borne two-pack epoxy reactive paints. For the primer is used TEKNOZINC 50 SE Zinc Rich Epoxy Paint, that contains zinc and also other efficient anticorrosive pigments. Semigloss TEKNOPLAST 50 or gloss TEKNOPLAST 90 can be used for the top coat.

Teknos Coating System Symbol	K22a	K22b	K22c
ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	-	-
The coating system structure:	EPZnEP160/3- FeSa 2½	EPZnEP200/3- FeSa 2½	EPZnEP280/4- FeSa 2½
TEKNOZINC 50 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPLAST PRIMER 3 Epoxy Primer	1 x 60 µm	1 x 80 µm	2 x 80 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Top Coat	1 x 60 µm	1 x 80 µm	1 x 80 µm
Total film thickness	160 µm	200 µm	280 µm
Coating system VOC, g/m ²	140	170	230

Example of the coating system marking: K22a - EPZnEP160/3-FeSa 2½.

USAGE Protection for steel surfaces exposed to atmospheric corrosion. Protection for steel surfaces subjected to humidity and splashes.

Teknos symbol	Typical use
K22a	Protection for steel surfaces in corrosivity categories C3 and 4.
K22b	Steel surfaces indoors and outdoors subjected to chemical splashes in corrosivity categories C3 and C4.
K22c	Protection for steel surfaces in corrosivity category C4.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 50 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 50 SE		TEKNOPLAST PRIMER 3		TEKNOPLAST 50		TEKNOPLAST 90		
Data Sheet No.	729		442		443		857		
Paint Type	epoxy zinc rich paint		two pack epoxy primer		two pack epoxy paint		two pack epoxy paint		
Colours	bluish grey		grey, red, yellow, white		Teknomix-tinting system		Teknomix-tinting system		
Finish	matt		semi-matt		semigloss		gloss		
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9506		
Methods of application	brush or airless spray		airless spray		airless spray		airless spray		
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)		0.013 - 0.019"		0.013 - 0.019"		0.011 - 0.013"		
Application conditions									
- min. temperature	°C	+10	+10	+10	+10	+10	+10	+10	
- max. relative humidity	%	80	80	80	80	80	80	80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet		
Volume solids	%	50 ±2 (ISO 3233:1988)	53 ±2 (ISO 3233:1988)		53 ±2		53 ±2		
Total mass of solids	g/l	abt. 1500	abt. 910		abt. 800		abt. 760		
Volatile organic compound (VOC)	g/l	abt. 470	abt. 440		abt. 430		abt. 430		
Recommended film thickness									
- wet	µm	80	113 - 150		113 - 150		113 - 150		
- dry	µm	40	60 - 80		60 - 80		60 - 80		
Theoretical spreading rate	m²/l	12.5	8.8 - 6.6		8.8 - 6.6		8.8 - 6.6		
Drying time at +23°C / 50% RH									
- dust free, (ISO 9117-3:2010)		(dry film 40 µm) after 5 min	(dry film 60 µm) after 1 h		(dry film 60 µm) after 1 h		(dry film 60 µm) after 1 h		
- touch dry, (DIN 53150:1995)		after 30 min	after 4 h		after 4 h		after 4 h		
- fully cured		after 7 d	-		-		after 7 d		
Overcoatable, 50% RH		by itself or with TEKNOPLAST PRIMER 3:	by itself:		by itself:		by itself:		
		min.	max.*	min.	max.*	min.	max.*	min.	max.*
	+10°C	after 6 h	after 3 months	after 6 h	after 18 months	after 6 h	after 1 month	after 6 h	after 1 month
	+23°C	after 1 h	after 3 months	after 2 h	after 18 months	after 2 h	after 1 month	after 2 h	after 1 month
	+10°C			with TEKNOPLAST 50 or with TEKNOPLAST 90:					
	+23°C			min.	max.*				
	+10°C			after 6 h	after 6 months				
	+23°C			after 2 h	after 6 months				

* Maximum overcoating interval without roughening.

TEKNOCRYL 90 ZINC SILICATE / ACRYLIC SYSTEMS

K23

	L	M	H
C2	O	O	O
C3	O		
C4			
C5	O	O	

8 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The zinc dust primer with ethyl silicate binder produces after drying an inorganic coating comparable with zincing. Top coating with acrylic paint protects the zinc coating against the environmental effects. The painting systems are excellent for site painting.

Teknos Coating System Symbol	K23a	K23b	K23c	K23e
EN ISO 12944-5 (2007) symbol/ corrosivity category / durability range	A3.12/C3/M A4.10/C4/L	A3.13/C3/H A4.11/C4/M	A4.12/C4/H	A5I.06/C5-I/H
EN ISO 12944-5 (1998) symbol/ corrosivity category / durability range	S3.26/C3/M S4.25/C4/L	S3.27/C3/H S4.26/C4/M	S4.27/C4/H	S6.11/C5-I/H
The coating system structure:	ESIZn(R)AY160/3- FeSa 2½	ESIZn(R)AY200/3- FeSa 2½	ESIZn(R)AY240/4- FeSa 2½	ESIZn(R)AY320/5- FeSa 2½
TEKNOZINC SS Zinc Silicate Paint	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOCRYL PRIMER 3 Acrylic Primer	1 x 40 µm	1 x 80 µm	2 x 60 µm	2 x 80 µm
TEKNOCRYL 90 Acrylic Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm	2 x 40 µm
Total film thickness	160 µm	200 µm	240 µm	320 µm
Coating System VOC, g/m ²	190	230	280	390

Example of the coating system marking: K23a - EN ISO 12944-5/ A3.12 (ESIZn(R)AY160/3-FeSa 2½).

USAGE Steel structures exposed to atmospheric corrosion outdoors.

Teknos symbol	Typical use
K23a	Structural steelwork outdoors, in corrosivity categories C3 and C4, that besides being exposed to atmospheric corrosion are also exposed to gases, salts and splashes
K23b	Structural steelwork outdoors, in corrosivity categories C3 and C4, that besides being exposed to atmospheric corrosion are also exposed to gases, salts and splashes
K23c	Structural steelwork outdoors, in corrosivity category C4, besides being exposed to atmospheric corrosion are also exposed to gases, salts and splashes.
K23e	Structural steelwork outdoors, in corrosivity category C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the paint thoroughly before use. In order to avoid sedimentation of the zinc dust TEKNOZINC SS must frequently be stirred in the course of work.
TEKNOZINC SS is supplied in two packs. Mix the components with each other about half an hour before use in the ratio of 3 parts by volume silicate to 7 parts by volume zinc dust paste. Mix only an amount sufficient to be used within the pot life of 4 hours.
As the specific gravity of the paint is high, it is necessary that when conventional spray is used the fluid level in the paint vessel is over the gun or at least at equal height with it.

NOTE! The dry film thickness must not exceed 100 µm. Otherwise there is a risk of cracking. Brush application easily fails to provide the recommended film thickness. Apply the paints to a dry, dust-free surface to the required film thickness.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Wash down the whole surface. Remove loose paint and rust from damaged areas. Remove acrylic paint layers surrounding the rusty parts 5 cm over the rusty edge. Touch up the patches with primer so that the primer will not cover the Acrylic paint. Paint with Acrylic paints the parts to the full film thickness. If required, the whole surface can be overcoated with the top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean surface to grade Sa 2½. Paint from priming to topcoat as for new work.

Technical Data

Paint		TEKNOZINC SS	TEKNOCRYL PRIMER 3	TEKNOCRYL 90		
Data Sheet	No.	81	615	614		
Paint Type		ethyl silicate zinc rich paint	acrylic primer	acrylic top coat		
Colours		greenish grey	grey and white	Teknomix tinting		
Finish		matt	matt	gloss		
Thinner		In special cases TEKNOSOLV 6060 max. 5% by volume	TEKNOSOLV 9502, TEKNOSOLV 1639	TEKNOSOLV 9502, TEKNOSOLV 1639		
Methods of application		airless spray, conventional spray or brush	airless spray	airless spray , brush		
Airless spray nozzle		0.018 - 0.021" (turn nozzle)	0.015"	0.013"		
Application conditions						
- min. temperature	C°	+5	0	0		
- relative humidity	%	50 - 90 (see Data Sheet)	below 80	below 80		
Safety markings		See Material Safety Data Sheet	See Material Safety Data Sheet	See Material Safety Data Sheet		
Volume solids	%	52 ±2	43 ±2	35 ±2		
Total mass of solids	g/l	abt. 1700	abt. 760	abt. 470		
Volatile organic compound (VOC)	g/l	abt. 510	abt. 500	abt. 590		
Recommended film thickness						
- wet	µm	153	93 - 186	115		
- dry	µm	80	40 - 80	40		
Theoretical spreading rate	m²/l	6.5	10.8 - 5.4	8.8		
Drying time, +23°C / 50 % RH		(dry film 60 µm)	(dry film 40 µm)	(dry film 40 µm)		
- dust free (ISO 9117-3:2010)		after ¼ h	after ½ h	after 1 h		
- touch dry (DIN 53150:1995)		after ½ h	after 1 h	after 2 h		
Overcoatable, 50% RH		by itself or with TEKNOCRYL PRIMER 3:	by itself or TEKNOCRYL 90:	by itself:		
			min.	max.	min.	max.
	0° C	-	after 6 h	-	after 8 h	-
	+5° C	after 3 d (RH 90% or wetting of surfaces) or after 2 weeks (RH 50%)	-	-	-	-
	+23° C	after 1 d (RH over 80% or wetting of surfaces) or after 2 weeks (RH 50%)	after 3 h	-	after 4 h	-
		In addition, the paint film must withstand light rubbing with a cloth wetted with TEKNOSOLV 9506.				

TEKNOCHLOR 90 ZINC SILICATE / CHLORINATED RUBBER SYSTEMS

K24

	L	M	H
C2	O	O	O
C3	O		
C4			
C5	O	O	

9 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The zinc dust primer with ethyl zinc silicate binder produces after drying an inorganic coating comparable with zincing. The chlorinated rubber top coat protects the zinc coating against environmental strains. The painting systems are excellent for site application.

Teknos Coating System Symbol	K24a	K24b	K24c	K24e
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.12/C3/M A4.10/C4/L	A3.13/C3/H A4.11/C4/M	A4.12/C4/H	A5.1.06/C5-I/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.26/C3/M S4.25/C4/L	S3.27/C3/H S4.26/C4/M	S4.27/C4/H	S6.11/C5-I/H
The coating system structure:	ESIZn(R)CR 160/3-FeSa 2½	ESIZn(R)CR 200/3-FeSa 2½	ESIZn(R)CR 240/4-FeSa 2½	ESIZn(R)CR 320/5-FeSa 2½
TEKNOZINC SS Zinc Silicate Paint	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOCHLOR PRIMER 3 Chlorinated Rubber Primer	1 x 40 µm	1 x 80 µm	2 x 60 µm	2 x 80 µm
TEKNOCHLOR 90 Chlorinated Rubber Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm	2 x 40 µm
Total film thickness	160 µm	200 µm	240 µm	320 µm
Coating system VOC, g/m ²	180	220	270	370

Example of the coating system marking: K24a - EN ISO 12944-5/ A3.12(ESIZn(R)CR160/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion.

Teknos symbol	Typical use
K24a	Structural steelwork exposed to atmospheric corrosion outdoors in corrosivity categories C3 and C4 that are also exposed to gases, salts and splashes.
K24b	Structural steelwork exposed to atmospheric corrosion outdoors in corrosivity categories C3 and C4 that are also exposed to gases, salts and splashes.
K24c	Structural steelwork exposed to atmospheric corrosion outdoors in corrosivity categories C3 and C4 that are also exposed to gases, salts and splashes.
K24e	Structural steelwork exposed to atmospheric corrosion outdoors in corrosivity category C5 that are also exposed to gases, salts and splashes.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the paints thoroughly before use. In order to avoid sedimentation of the zinc dust TEKNOZINC SS must frequently be stirred in the course of work. TEKNOZINC SS is supplied in two packs. Mix the components with each other abt. half an hour before use in the ratio of 3 parts by volume silicate to 7 parts by volume zinc dust paste. Mix only an amount sufficient to be used within the pot life 4 hours. As the specific gravity of the paint is high, it is necessary that when conventional spray is used the fluid level in the paint vessel is over the gun or at least at equal height with it.

NOTE! The dry film thickness must not exceed 100 µm. Otherwise there is a risk of cracking. Brush application easily fails to provide the recommended film thickness.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Wash the whole surface with water. Remove all loose paint and rust from damaged areas. Remove the chlorinated rubber coats abt. 5 cm wide from the edges of rusty areas. Prime the bare patches so that the primer and the chlorinated rubber coats do not overlap. Touch up the prepared areas with the chlorinated rubber paints to the full film thickness. A full top coat can be applied if required.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to preparation grade Sa 2½. Paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOZINC SS	TEKNOCHLOR PRIMER 3	TEKNOCHLOR 90		
Data Sheet	No.	81	94	8		
Paint Type		ethyl silicate zinc dust paint	chlorinated rubber primer	chlorinated rubber top coat		
Colours		greenish grey	red, grey	Teknomix tinting		
Finish		matt	matt	gloss		
Thinner		In special cases with TEKNOZINC 6060 max. 5% by volume	TEKNOSOLV 9502 TEKNOSOLV 1639 TEKNOSOLV 1640	TEKNOSOLV 9502 TEKNOSOLV 1639 TEKNOSOLV 1640		
Methods of application		airless spray, conventional spray or brush	airless spray	airless spray		
Airless spray nozzle		0.018 - 0.021" (turn-nozzle)	0.015"	0.015"		
Application conditions						
- min. temperature	°C	+5	-10	-10		
- relative humidity	%	50 - 90 (see Data Sheet)	below 80	below 80		
Safety markings		See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet		
Volume solids	%	52 ±2	42 ±2	42 ±2		
Total mass of solids	g/l	abt. 1700	abt. 800	abt. 760		
Volatile organic compound (VOC)	g/l	abt. 510	abt. 510	abt. 520		
Recommended film thickness						
- wet	µm	153	95 - 190	95		
- dry	µm	80	40 - 80	40		
Theoretical spreading rate	m²/l	6.5	10.5 - 5.2	10.5		
Drying time, +23°C / 50 % RH		(dry film 60 µm)	(dry film 60 µm)	(dry film 40 µm)		
- dust free (ISO 9117-3:2010)		after ¼ h	after ½ h	after ½ h		
- touch dry (DIN 53150:1995)		after ½ h	after 2 h	after 2 h		
Overcoatable, 50 % RH		by itself or with TEKNOCHLOR PRIMER 3:	by itself or with TEKNOCHLOR 90:	by itself:		
			min.	max.	min.	max.
	+5°C	after 3 d (RH 90% or wetting of surfaces) or after 2 weeks (RH 50%)	after 8 h	-	after 8 h	-
	+23°C	after 1 d (RH over 80% or wetting of surfaces) or after 2 weeks (RH 50%)	after 3 h	-	after 4 h	-
		In addition, the paint film must withstand light rubbing with a cloth wetted with TEKNOZINC 9506.				

TEKNOZINC SS ZINC SILICATE SYSTEM

K25

	L	M	H
C2	O		
C3			
C4			
C5			

10 29.6.2016

Protective coating systems for steel surfaces. The systems consist of a zinc dust paint with ethyl binder that after drying forms an inorganic coating comparable to zincing. TEKNOZINC SS and TEKNOZINC SS 1K Zinc Silicate Paints resist different solvents, oils, dry heat up to +400°C, weather and mechanical abrasion. The coating systems are excellent for site painting.

Teknos Coating System Symbol	K25b	K25a
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	A2.08/C2/H A3.10/C3/M A4.16/C4/L
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	-	S2.18/C2/H S3.25/C3/M S4.24/C4/L
The coating system structure:	ESIZn(R)70/1- FeSa 2½	ESIZn(R)60/1- FeSa 2½
TEKNOZINC SS Zinc Silicate Paint TEKNOZINC SS 1K Zinc Silicate Paint	1 x 70 µm	1 x 60 µm
Total film thickness	70 µm	60 µm
Coating system VOC, g/m ² with TEKNOZINC SS Zinc Silicate paint with TEKNOZINC SS 1K Zinc Silicate paint	68 53	59 45

Example of the coating system marking: K25a- EN ISO 12944-5/ A2.08(ESIZn(R)60/1-FeSa 2½).

Usage

Teknos symbol	Typical use
K25a	Coating comparable to zincing for blast-cleaned steel surfaces in corrosivity categories C2, C3 and C4 also for surfaces exposed to solvents and heat.
K25b	Coating comparable to zincing for blast-cleaned steel surfaces. System in accordance with standard SFS 5873 for surfaces subjected to dry heat 150 - 400°C (system F20.05) and in solvent immersion (system F22.06).

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating system is compatible with KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the paint thoroughly before use. In order to avoid sedimentation of the zinc dusts TEKNOZINC SS and TEKNOZINC SS 1K must frequently be stirred in the course of work. TEKNOZINC SS is supplied in two packs. Mix the components with each other abt. half an hour before use in the ratio of 3 parts by volume silicate to 7 parts by volume zinc dust paste. Mix only an amount sufficient to be used within the pot life 4 hours. As the specific gravity of the paint is high, it is necessary that when conventional spray is used the fluid level in the paint vessel is over the gun or at least at equal height with it.

NOTE! The dry film thickness must not exceed 100 µm. Otherwise there is a risk of cracking. Brush application easily fails to provide the recommended film thickness.

The technical data of the paint is given in the table below and in the data sheet of the product.

Maintenance **Touch-up:** Surfaces with rust grades Ri 2 to Ri 3 can be repaired by touching up. Wash the whole surface. Remove all loose paint and rust from the damaged areas and feather the edges of prepared areas. Paint the prepared areas according to the original paint system to the full film thickness.

Technical Data

Paint		TEKNOZINC SS	TEKNOHEAT 500
Data Sheet	No.	81	1861
Paint Type		ethyl silicate zinc rich paint	ethyl silicate zinc dust paint
Colours		greenish grey	grey
Finish		matt	matt
Thinner		In special cases TEKNOSOLV 6060, max. 5% by volume	TEKNOSOLV 1639
Methods of application		airless spray, conventional spray or brush	airless spray, conventional spray or brush
Airless spray nozzle		0.018 - 0.021" (turn nozzle)	0,015 - 0,021" (turn-nozzle)
Application conditions			
- min. temperature	°C	+5	+5
- relative humidity	%	50 - 90 (see Data Sheet)	50 - 90
Safety markings		See Material Safety Data Sheet	See safety data sheet
Volume solids	%	52 ±2	60 ±2
Total mass of solids	g/l	abt. 1700	abt. 2080
Volatile organic compound (VOC)	g/l	abt. 510	abt. 450
Recommended film thickness			
- wet	µm	134 - 153	133
- dry	µm	70 - 80	80
Theoretical spreading rate	m ² /l	7.4 - 6.5	7.5
Drying time, +23°C / 50 % RH		(dry film 60 µm)	(dry film 60 µm)
- dust free (ISO 9117-3:2010)		after ¼ h	after ¼ h
- touch dry (DIN 53150:1995)		after ½ h	after ½ h
Overcoatable, 50 % RH		by itself:	by itself:
	+5°C	after 3 d (RH 90% or wetting of surfaces) or after 2 weeks (RH 50%)	after 7 d (RH 90 % or wetting the surfaces)
	+23°C	after 1 d (RH over 80% or wetting of surfaces) or after 2 weeks (RH 50%)	after 6 h (RH over 80 % or wetting the surfaces)
		In addition, the paint film must withstand light rubbing with a cloth wetted with TEKNOSOLV 9506.	In addition, the paint film must withstand light rubbing with a cloth wetted with TEKNOSOLV 9506.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

8 23.1.2017

K27

	L	M	H
C2	O	O	O
C3	O	O	
C4			
C5	O		

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. The primer used on steel is TEKNOZINC 90 SE Zinc Rich Epoxy Paint, which protects the steel cathodically like zincing. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paints can be used for the top coat.

Teknos Coating System Symbol	K27a	K27b	K27c	K27d	K27e
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	-	A5I.05/C5-I/H A5M.06/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.21/C3/H S4.19/C4/L S6.05/C5-I/M	S3.22/C3/H S4.20/C4/M	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EP PUR160/3- FeSa 2½	EPZn(R)EP PUR200/4- FeSa 2½	EPZn(R)EP PUR240/4- FeSa 2½	EPZn(R)EP PUR280/4- FeSa 2½	EPZn(R)EP PUR320/5- FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
INERTA PRIMER 5 Epoxy Primer	1 x 80 µm	2 x 60 µm	2 x 80 µm	2 x 100 µm	3 x 80 µm
TEKNODUR 0050 Polyurethane Paint or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050	130	160	190	220	250

Example of the coating system's marking: K27a - EN ISO 12944-5/ A3.11(EPZn(R)EPPUR160/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K27a	Protection for steel surfaces in corrosivity categories C3 and C4.
K27b	Protection for steel surfaces in corrosivity categories C3 and C4.
K27c	Steel surfaces outdoors corrosivity categories C3 and C4.
K27d	Protection for steel surfaces in corrosivity category C4.
K27e	Steel surfaces outdoors in severe corrosivity, corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 90 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 90 SE		INERTA PRIMER 5		TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet No.	15		87		TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint Type	zinc rich epoxy paint		epoxy primer		polyurethane top coat	
Colours	bluish grey		red, yellow, grey and white		Teknomix tinting	
Finish	matt		matt		TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9521 or TEKNOSOLV 6220	
Methods of application	airless spray		airless spray		airless spray	
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)		0.013 - 0.018"		TEKNODUR 0050: 0.011 - 0.013" TEKNODUR 0090: 0.011 - 0.013"	
Application conditions						
- min. temperature °C	+10		+10		+5	
- max. relative humidity %	80		80		80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet	
Volume solids %	53 ±2 (ISO 3233:1988)		55 ±2		TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)	
Total mass of solids g/l	about 2100		about 1000		TEKNODUR 0050: about 870 TEKNODUR 0090: about 730	
Volatile organic compound (VOC) g/l	about 450		about 430		TEKNODUR 0050: about 430 TEKNODUR 0090: about 460	
Recommended film thickness					TEKNODUR 0050:	
- wet µm	75		109 - 180		71	
- dry µm	40		60 - 100		40 TEKNODUR 0090: 80 40	
Theoretical spreading rate m ² /l	13.2		9.2 - 5.5		TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5	
Drying time at +23°C / 50% RH	(dry film 40 µm)		(dry film 60 µm)		(dry film 40 µm)	
- dust free, (ISO 9117-3:2010)	after 5 min		after 1 h		after 1 h	
- touch dry, (DIN 53150:1995)	after 30 min		after 3 h		after 3 h	
Overcoatable, 50% RH	by itself or by INERTA PRIMER 5		by itself		TEKNODUR 0050: by itself	
+5°C	min.	max.*	min.	max.*	min.	max.*
	-	-	-	-	after 20 h	18 months or Extended**
	after 6 h	after 3 months	after 12 h	after 6 months	-	-
	after 1 h	after 3 months	after 4 h	after 6 months	after 12 h	18 months or Extended**
+10°C			with TEKNODUR 0050 or 0090		TEKNODUR 0090: by itself	
	min.	max.*	min.	max.*	min.	max.*
	-	-	-	-	after 20 h	-
	after 12 h	after 7 d	-	-	-	-
+23°C			with TEKNODUR 0050 or 0090		TEKNODUR 0090: by itself	
	min.	max.*	min.	max.*	min.	max.*
-	-	-	-	after 20 h	-	
after 4 h	after 3 d	after 12 h	after 3 d	after 12 h	-	

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K28

9 26.1.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. The primer used on steel is TEKNOZINC 50 SE Zinc Rich Epoxy Paint that contains zinc and other efficient anticorrosive pigments. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paints can be used for the top coat.

Teknos Coating System Symbol	K28a	K28b	K28c
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-	-	-
The coating system structure:	EPZnEPPUR160/3- FeSa 2½	EPZnEPPUR200/4- FeSa 2½	EPZnEPPUR280/4- FeSa 2½
TEKNOZINC 50 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm
INERTA PRIMER 5 Epoxy Primer	1 x 80 µm	2 x 60 µm	2 x 100 µm
TEKNODUR 0050 Polyurethane Paint or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	160 µm	200 µm	280 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	130	160	220

Example of the coating system marking: K28a - EPZnEPPUR160/3-FeSa 2½.

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K28a	Steel surfaces outdoors in corrosivity categories C3 and C4.
K28b	Steel surfaces outdoors in corrosivity categories C3 and C4.
K28c	Steel surfaces outdoors in severe corrosivity, corrosivity category C4.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

PTO

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness. **NOTE!** TEKNOZINC 50 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 50 SE		INERTA PRIMER 5		TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet No.	729		87		TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint Type	zinc rich epoxy paint		epoxy primer		polyurethane top coat	
Colours	bluish grey		red, yellow, grey and white		Teknomix tinting	
Finish	matt		matt		TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9521, TEKNOSOLV 6220	
Methods of application	airless spray		airless spray		airless spray	
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)		0.013 - 0.018"		TEKNODUR 0050: 0.011 - 0.013" TEKNODUR 0090: 0.011 - 0.013"	
Application conditions - min. temperature °C - max. relative humidity %	+10 80		+10 80		+5 80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet	
Volume solids %	50 ±2% (ISO 3233:1988)		55 ±2%		TEKNODUR 0050: 56 ±2% (ISO 3233:1988) TEKNODUR 0090: 50 ±2% (ISO 3233:1988)	
Total mass of solids g/l	abt. 1500		abt. 1000		TEKNODUR 0050: abt. 870 TEKNODUR 0090: abt. 730	
Volatile organic compound (VOC) g/l	abt. 470		abt. 430		TEKNODUR 0050: abt. 430 TEKNODUR 0090: abt. 460	
Recommended film thickness - wet µm - dry µm	80 40		109 - 180 60 - 100		TEKNODUR 0050: 71 40 TEKNODUR 0090: 80 40	
Theoretical spreading rate m²/l	12.5		9.2 - 5.5		TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5	
Drying time at +23°C / 50% RH - dust free, (ISO 9117-3:2010) - touch dry, (DIN 53150:1995)	(dry film 40 µm) after 5 min after 30 min		(dry film 60 µm) after 1 h after 3 h		(dry film 40 µm) after 1 h after 6 h	
Overcoatable, 50% RH	by itself or with INERTA PRIMER 5		by itself		TEKNODUR 0050: by itself	
+5°C +10°C +23°C	min	max.*	min.	max.*	min.	max.*
	-	-	-	-	after 20 h	18 months or Extended**
	after 6 h	after 3 months	after 12 h	after 6 months	-	-
	after 1 h	after 3 months	after 4 h	after 6 months	after 12 h	18 months or Extended**
+5°C +10°C +23°C			with TEKNODUR 0050 or 0090		TEKNODUR 0090: by itself	
	min.	min.*	min.	min.*	min.	min.*
	-	-	after 20 h	-	-	-
	after 12 h	after 7 d	after 4 h	after 3 d	after 12 h	-

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

11 12.4.2017

K29

	L	M	H
C2	O		
C3			Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

Coating systems for steel and zinc surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paint can be used for the topcoat.

STEEL SURFACES:

Teknos Coating System Symbol	K29a	K29b	K29c	K29d	K29e	K29f
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5I.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15/C2/M S3.16/C3/L	S2.16/C2H S3.17/C3/M	S3.18/C3/H S4.12/C4/M S7.02/C5-M/L	S3.19/C3/H S4.13/C4/M	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C4-I/H S7.04/C5-M/H
The coating system structure:	EPPUR120/2- FeSa 2½	EPPUR160/3- FeSa 2½	EPPUR200/3- FeSa 2½	EPPUR240/4- FeSa 2½	EPPUR280/4- FeSa 2½	EPPUR320/4- FeSa 2½
INERTA PRIMER 5 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
INERTA PRIMER 5 Epoxy Primer	-	1 x 40 µm	1 x 80 µm	2 x 60 µm	2 x 80 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050	90	130	160	190	220	250

ZINC SURFACES:

Teknos Coating System Symbol	K29g	K29h	K29i	K29j
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.12/C4/H A7.12/C5-I/M A7.12/C5-M/M	A7.13/C4/H A7.13/C5-I/H A7.13/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	S9.11/C4/H S9.11/C5-L S9.11/C5-M/M	S9.12/C4/H S9.12/C5-I/M S9.12/C5-M/H	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EPPUR120/2- ZnSaS	EPPUR160/3- ZnSaS	EPPUR240/4- ZnSaS	EPPUR320/4- ZnSaS
INERTA PRIMER 5 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
INERTA PRIMER 5 Epoxy Primer	-	1 x 40 µm	2 x 60 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	240 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050	90	130	190	250

Example of the coating system's marking: K29a - EN ISO 12944-5/ A2.06(EPPUR120/2-FeSa 2½).

USAGE

Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
Steel surfaces:	
K29a	Protection for steel surfaces in corrosivity categories C2 and C3.
K29b	Protection for steel surfaces in corrosivity categories C2 and C3.
K29c	Protection for steel surfaces in corrosivity categories C3 and C4.
K29d	Protection for steel surfaces in corrosivity categories C3 and C4.
K29e	Protection for steel surfaces in corrosivity category C4.
K29f	Protection for steel surfaces in corrosivity categories C4 and C5.
Zinc surfaces:	
K29g	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5.
K29h	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5.
K29i	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5.
K29j	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5.

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain. It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		INERTA PRIMER 5	TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet	No.	87	TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint Type		epoxy primer	polyurethane top coat	
Colours		red, yellow, grey and white	Teknomix tinting	
Finish		matt	TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9521, TEKNOSOLV 6220	
Methods of application		airless spray	airless spray	
Airless spray nozzle		0.013 - 0.018"	TEKNODUR 0050: 0.011 - 0.013" TEKNODUR 0090: 0.011 - 0.013"	
Application conditions				
- min. temperature	°C	+10	+5	
- max. relative humidity	%	80	80	
Safety markings		See Safety Data Sheet	See Safety Data Sheet	
Volume solids	%	55 ±2%	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)	
Total mass of solids	g/l	about 1000	TEKNODUR 0050: about 870 TEKNODUR 0090: about 730	
Volatile organic compound (VOC)	g/l	about 430	TEKNODUR 0050: about 430 TEKNODUR 0090: about 460	
Recommended film thickness			TEKNODUR 0050:	
- wet	µm	73 - 180	71	
- dry	µm	40 - 100	40	
			TEKNODUR 0090:	
			80	
			40	
Theoretical spreading rate	m ² /l	13.7 - 5.5	TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5	
Drying time at +23°C / 50% RH			(dry film 40 µm)	
- dust free, (ISO 9117-3:2010)		dry film 60 µm)	after 1 h	
- touch dry, (DIN 53150:1995)		after 1 h after 3 h	after 1 h after 6 h	
Overcoatable, 50% RH		by itself	TEKNODUR 0050: by itself	
		min.	max.*	min.
		-	-	after 20 h
+5°C				18 months or Extended**
+10°C		after 12 h	after 6 months	-
+23°C		after 4 h	after 6 months	18 months or Extended**
		with TEKNODUR 0050 or TEKNODUR 0090		TEKNODUR 0090: by itself
		min.	max.*	min.
		-	-	after 20 h
+5°C				-
+10°C		after 12 h	after 7 d	-
+23°C		after 4 h	after 3 d	-

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

INERTA 160 EPOXY SYSTEMS

13 12.4.2017

K31

	L	M	H
C2	O	O	O
C3	O	O	O
C4	O	O	O
C5	O		
Im	O		

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of chemically curing two pack epoxy reactive paints.

Teknos Coating System Symbol	K31a	K31b	K31c	K31d
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A5M.03/C5-M/M A6.09/Im1-3/M	-	A6.06/Im1-3/H	-
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S7.05/C5-M/M	-	S8.06/Im1, Im2, Im3/H	-
The coating system structure:	EP400/1- FeSa 2½	EP500/1- FeSa 2½	EP800/1- FeSa 2½	EP1500/2- FeSa 2½
INERTA 160 FILL Epoxy Coating			1 x 800 µm	1 x 1000 µm
INERTA 160 Epoxy Coating	1 x 400 µm	1 x 500 µm	-	1 x 500 µm
Total film thickness	400 µm	500 µm	800 µm	1500 µm
Coating system VOC, g/m²	17	21	33	63

Example of the coating system marking: K31a - EN ISO 12944-5/ A5M.03(EP400/1-FeSa 2½).

USAGE

Protection for steel surfaces exposed to atmospheric corrosion. Protection for steel surfaces subjected to heavy mechanical abrasion. Protection for steel surfaces immersed in soil or water.

Teknos symbol	Typical use
K31a	Protection for steel surfaces in marine atmosphere in corrosivity category C5-M.
K31b	A system for application by hot twin-feed spray. It provides excellent abrasion resistance and good chemical resistance. It is used on bottoms of ice-going vessels, sluice gates and other structures exposed to heavy abrasion or immersion. Corrosivity categories Im1, Im2 and Im3. System in accordance with standard SFS 5873 for corrosivity categories Im1 - Im3 (system F22.02).
K31c	Protection for steel surfaces in corrosivity categories Im1, Im2 and Im3.
K31d	Protection for steel surfaces on objects immersed in soil or water, whenever a long service life and good durability is required, e.g. with cathodic protection. Corrosivity categories Im1, Im2 and Im3

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). The profile of the blast-cleaned surface must be at least rough. See standard ISO 8503-2.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

All prefabrication primer coats must be completely removed regardless of the binder type. In practice this means that when the surface is viewed vertically from a distance of 1 m and in normal lighting conditions the surface is of an evenly grey colour, i.e. the preparation grade is Sa 2½ (ISO 8501-1).

Application INERTA 160 and INERTA 160 FILL are applied with a hot twin-feed spray, e.g. Graco Hydra-Cat equipped with turn-nozzle.
The heating of the components shall be adjusted so that the temperature in the gun is +40 - +50°C. The pot life of the mixture is then 5 min. The paint is sprayed to a film thickness of 500 µm. Pores and cavities in the surface can be filled with INERTA 160 FILL (see Data Sheet 190).

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Small damages can be prepared by discing. Feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is desired, the whole surface should be cleaned and roughened by sweep-blasting or grinding, then overcoated with the system's top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		INERTA 160 FILL	INERTA 160		
Data Sheet	No.	190	119		
Paint Type		epoxy coating	nearly solvent-free epoxy paint		
Colours		white, black, red and T-M 338.	T-M 101 white, T-M 102 black and T-M 303 red.		
Finish		-	gloss		
Methods of application		twin-feed spray, e.g. Graco Hydra-Cat	twin-feed spray, e.g. Graco Hydra-Cat		
Airless spray nozzle		0.021 - 0.026" (turn-nozzle)	0.021 - 0.026" (turn-nozzle)		
Application conditions					
- min. temperature	°C	+10	+10		
- max. relative humidity	%	80	80		
Safety markings		See Material Safety Sheet	See Material Safety Sheet		
Volume solids	%	96 ±2	96 ±2		
Total mass of solids		abt. 1400	abt. 1400		
Volatile organic compound (VOC)		abt. 40	abt. 40		
Recommended film thickness					
- wet	µm	833 - 1041	416 - 521		
- dry	µm	800 - 1000	400 - 500		
Theoretical spreading rate	m ² /l	1.2 - 1.0	2.4 - 1.9		
Drying time at +23°C / 50% RH					
- dust free, (ISO 9117-3:2010)		after 4 h	after 4 h		
- touch dry, (DIN 53150:1995)		after 6 h	after 6 h		
- fully cured		after 7 d	after 7 d		
Overcoatable, 50% RH		by itself or with INERTA 160:	by itself:		
		min.	max.*	min.	max.*
	+10°C	after 8 h	after 12 h	after 8 h	after 12 h
	+23°C	after 4 h	after 12 h	after 4 h	after 8 h

* Maximum overcoating interval without roughening.

TEKNOCHLOR 90 CHLORINATED RUBBER SYSTEMS

K32

	L	M	H
C2	O	O	
C3	O		
C4			
C5			

9 12.4.2017

Protective coating systems for steel surfaces. The systems consist of physically drying, solvent-borne one pack chlorinated rubber paints. The systems are excellent for site application.

Teknos Coating System Symbol	K32a	K32b	K32c
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	A2.05/C2/H A3.05/C3/M	A3.06/C3/H A4.04/C4/L	A4.05/C4/M
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S2.14/C2/H	S3.13/C3/H S4.08/C4/L S6.01/C5-I/L S7.01/C5-M/L	S3.14/C3/H S4.09/C4/M
The coating system structure:	CR160/3- FeSa 2½	CR200/3- FeSa 2½	CR240/3- FeSa 2½
TEKNOCHLOR PRIMER 3 Chlorinated Rubber Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOCHLOR 90 Chlorinated Rubber Top Coat	2 x 40 µm	2 x 60 µm	2 x 80 µm
Total film thickness	160 µm	200 µm	240 µm
Coating system VOC, g/m ²	200 µm	240µm	300µm

Example of the coating system marking: K32a - EN ISO 12944-5/ A2.05(CR160/3-FeSa 2½).

USAGE Metal structures indoors and outdoors exposed to atmospheric and chemical corrosion.

Teknos symbol	Typical use
K32a	Steel structures exposed to atmospheric corrosion outdoors in corrosivity categories C2 and C3.
K32b	For protection of steel surfaces outdoors in corrosivity categories C3 - C4.
K32c	As above, but also for corrosivity caused by splashes, dust and gases.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO PVB Prefabrication Primer, KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application The surface must be dry and free from dust. Stir the paints thoroughly before use. Apply the paints in an even coat to the required film thickness.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes a full top coat, matt down glossy old paint coats and remove all dust and grindings. Touch up the prepared patches with the primer and the top coat of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint		TEKNOCHLOR PRIMER 3	TEKNOCHLOR 90		
Data Sheet	No.	94	8		
Paint Type		chlorinated rubber primer	chlorinated rubber top coat		
Colours		red, grey	Teknomix tinting		
Finish		matt	gloss		
Thinner		TEKNOSOLV 9502, TEKNOSOLV 1639, TEKNOSOLV 1640	TEKNOSOLV 9502, TEKNOSOLV 1639, TEKNOSOLV 1640		
Methods of application		airless spray	airless spray		
Airless spray nozzle		0.015"	0.015"		
Application conditions					
- min. temperature	°C	-10	-10		
- max. relative humidity	%	80	80		
Safety markings		See Safety Data Sheet	See Safety Data Sheet		
Volume solids	%	42 ±2	42 ±2		
Total mass of solids	g/l	abt. 800	abt. 760		
Volatile organic compound (VOC)	g/l	abt. 510	abt. 520		
Recommended film thickness					
- wet	µm	190	95 - 190		
- dry	µm	80	40 - 80		
Theoretical spreading rate	m ² /l	5.2	10.5 - 5.2		
Drying time, +23°C / 50 % RH		(dry film 60 µm)	(dry film 40 µm)		
- dust free (ISO 9117-3:2010)		after ½ h	after ½ h		
- touch dry (DIN 53150:1995)		after 2 h	after 2 h		
Overcoatable, 50% RH		by itself or with TEKNOCHLOR 90:	by itself:		
		min.	max.	min.	max.
	+5°C	after 8 h	-	after 8 h	-
	+23°C	after 3 h	-	after 4 h	-

INERTA 165 EPOXY SYSTEMS

12 30.3.2017

K34

	L	M	H
C2	o	o	o
C3	o	o	o
C4	o	o	o
C5	o		
Im			

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of a chemically curing two pack epoxy reactive coating.

Teknos Coating System Symbol	K34d	K34a	K34b	K34c
SFS-EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-	-	A5M.01/C5-M/M	A5M.04/C5-M/H A6.04/Im1-3/H
SFS-EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	-	-	S7.03/C5-M/M	S7.06/C5-M/H
The coating system structure:	EP200/1- FeSa 2½	EP300/1- FeSa 2½	EP300/2- FeSa 2½	EP500/2- FeSa 2½
INERTA 165 Epoxy Coating	1 x 200 µm	1 x 300 µm	2 x 150 µm	2 x 250 µm
Total film thickness	200 µm	300 µm	300 µm	500 µm
Coating system VOC, g/m ²	22	33	33	54
Coating system VOC, g/m ² with 165-01 hardener	15	23	23	38

Example of the coating system marking: K34b - SFS-EN ISO 12944-5/ A5M.01(EP300/2-FeSa 2½).

USAGE Protection for steel surfaces exposed to atmospheric corrosion and hard mechanical abrasion.

Teknos symbol	Typical use
K34a	Used on objects that are subjected to hard mechanical abrasion, e.g. snow ploughs, conveyors, floor plates. Fulfills durability requirements of system A5M.01 in standard ISO 12944-5.
K34b	Protection for steel structures in corrosivity category C5-M.
K34c	Used on objects submitted to hard mechanical abrasion, e.g. railway carriages and navigation marks in corrosivity category C5-M. System in accordance with standard SFS 5873 for immersed steel surfaces in corrosivity category Im1 - Im3 (F22.01).
K34d	Protection for steel structures in corrosivity categories C3-C4. Fulfills durability requirements of system A3.09 in standard ISO 12944-5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). The profile of the blast-cleaned surface must be at least rough. See standard ISO 8503-2.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

All prefabrication primer coats must be completely removed regardless of the binder type. In practice this means that when the surface is viewed vertically from a distance of 1 m and in normal lighting conditions the surface is of an evenly grey colour, i.e. the preparation grade is Sa 2½ (ISO 8501-1).

Application INERTA 165 can be applied with twin-feed spray **OR** with one-feed airless spray. Mix the components immediately before use and stir thoroughly by drilling machine. Mix only an amount sufficient to be used within the pot life 30 minutes (at +23°C).

The technical data of the paint are given in the table below and in the data sheet of the product.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Small damages can be prepared by discing. Feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is required, the whole surface should be cleaned by sweep-blasting or grinding. Thereafter the system's top coat can be applied.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	INERTA 165		with INERTA 165-01 HARDENER	
Data Sheet	No.	155	1751	
Paint Type	epoxy paint with low solvent content		epoxy paint with low solvent content	
Colours	white and black. Other colours with limitations.		white and black. Other colours with limitations.	
Finish	gloss		gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506	
Methods of application	airless spray, roller, brush		airless spray, roller, brush	
Airless spray nozzle	0.019 - 0.026" (turn-nozzle)		0.019 - 0.026" (turn-nozzle)	
Application conditions	°C	+10	+5	
- min. temperature	%	80	80	
- max. relative humidity	See Material Safety Data Sheet		See Material Safety Data Sheet	
Safety markings	92 ±2		92 ±2	
Volume solids	abt. 1300		abt. 1380	
Total mass of solids	abt. 100		abt. 70	
Volatile organic compound (VOC)	163 - 326		163 - 425	
Recommended film thickness	150 - 300		150 - 400	
- wet	µm	6.1 - 3.1	6.1 – 2.4	
- dry	µm	(dry film 250 µm)	(dry film 250 µm)	
Theoretical spreading rate	m ² /l	after 6 h	after 5 h	
Drying time, +23°C / 50 % RH		after 12 h	after 7 h	
- dust free (ISO 9117-3:2010)		after 7 d	after 7 d	
- touch dry (DIN 53150:1995)		by itself:	by itself:	
- fully cured		min.	min.	max.*
Overcoatable, 50% RH		max.*	min.	max.*
	+5°C	-	after 24 h	after 3 d
	+10°C	after 10 h	after 9 h	after 2 d
	+23°C	after 6 h	after 5 h	after 24 h

* Maximum overcoating interval without roughening.

INERTA 50 MIOX EPOXY SYSTEMS

7 1.4.2008

K35

	L	M	H
C2	O	O	
C3	O		O
C4			
C5	O		

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of chemically curing, solvent-borne two pack epoxy reactive paints. The intermediate coat and the top coat contain micaceous iron oxide (MIOX).

Teknos Coating System Symbol	K35a	K35b	K35c
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.07/C2/H A3.08/C3/M A4.13/C4/L	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	A5I.05/C5-I/H A5M.06/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.21/C3/H S4.19/C4/L	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EP160/3- FeSa 2½	EPZn(R)EP240/4- FeSa 2½	EPZn(R)EP320/4- FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm
INERTA 51 MIOX Epoxy Paint	1 x 60 µm	2 x 70 µm	2 x 110 µm
INERTA 50 MIOX Epoxy Paint	1 x 60 µm	1 x 60 µm	1 x 60 µm
Total film thickness	160 µm	240 µm	320 µm
Coating system VOC, g/m ²	130	180	240

Example of the coating system marking: K35b - EN ISO 12944-5/ A4.15(EPZn(R)EP240/4-FeSa 2½).

USAGE Protection for steel surfaces exposed to atmospheric corrosion. The systems are especially suitable for structures requiring long-term resistance to weathering and ultraviolet radiation.

Teknos symbol	Typical use
K35a	The coating system consists of zinc rich epoxy paint and of an intermediate coat and top coat that contain micaceous iron oxide (MIOX). The system is used for steelwork subjected to mechanical abrasion and atmospheric corrosion, e.g. bridges. Corrosivity categories C2, C3 and C4.
K35b	Very severe industrial climate and on special objects in industry subjected to severe stress. Corrosivity categories C4, C5-I and C5-M.
K35c	Protection for structural steel in corrosivity categories C5-I and C5-M.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray, since only this method provides the recommended film thickness for the primer and intermediate coat in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 90 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOZINC 90 SE	INERTA 51 MIOX	INERTA 50 MIOX			
Data Sheet	No.	15	197	193			
Paint Type		epoxy zinc rich paint	epoxy paint	epoxy paint			
Colours		bluish grey	dark grey, red	Industrial Colour Card with limitations			
Finish		matt	semi-matt	semi-matt			
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506			
Methods of application		airless spray	airless spray	airless spray			
Airless spray nozzle		0.018 - 0.021" (turn-nozzle)	0.017 - 0.021"	0.017 - 0.021"			
Application conditions							
- min. temperature	°C	+10	+10	+10			
- max. relative humidity	%	80	80	80			
Safety markings		See Material Safety Sheet	See Material Safety Sheet	See Material Safety Sheet			
Volume solids	%	53 ±2 (ISO 3233:1988)	55 ±2	50 ±2			
Total mass of solids	g/l	abt. 2100	abt. 1100	abt. 1300			
Volatile organic compound (VOC)	g/l	abt. 450	abt. 400	abt. 400			
Recommended film thickness							
- wet	µm	75	127 - 200	120 - 140			
- dry	µm	40	70 - 110	60 - 70			
Theoretical spreading rate	m²/l	13.2	7.9 - 5.0	8.3 - 7.1			
Drying time at +23°C / 50% RH - dust free, (ISO 1517:1973) - touch dry, (DIN 53150:1995) Overcoatable, 50% RH		(dry film 40 µm) after 5 min after 30 min by itself or with INERTA 51 MIOX:	(dry film 80 µm) after 1 h after 4 h by itself or with INERTA 50 MIOX:	(dry film 60 µm) after 1 h after 6 h by itself:			
- structures in atmospheric exposure		min.	max.*	min.	max.*		
+10°C		after 6 h	after 3 months	after 16 h	after 6 months	after 24 h	after 3 months
+23°C		after 1 h	after 3 months	after 5 h	after 6 months	after 12 h	after 3 months

* Maximum overcoating interval without roughening.

TEKNOPLAST 50 / 90 EPOXY SYSTEMS

8 12.4.2017

K36

	L	M	H
C2	O		
C3			Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

Coating systems for anti-corrosive painting on steel and zinc surfaces. The systems consist of chemically curing, solvent-borne two pack epoxy reactive paints. Semigloss TEKNOPLAST 50 or gloss TEKNOPLAST 90 can be used for the top coat.

STEEL SURFACES:

Teknos Coating System Symbol	K36a	K36b	K36c	K36d	K36e	K36f
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5I.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15/C2/M S3.16/C3/L	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S3.19/C3/H S4.13/C4/M	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EP120/2- FeSa 2½	EP160/2- FeSa 2½	EP200/3- FeSa 2½	EP240/3- FeSa 2½	EP280/4- FeSa 2½	EP320/4- FeSa 2½
TEKNOPLAST PRIMER 5 Epoxy Primer	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 5 Epoxy Primer	-	-	1 x 60 µm	1 x 80 µm	2 x 70 µm	2 x 90 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Top Coat	1 x 60 µm	1 x 80 µm	1 x 60 µm	1 x 80 µm	1 x 60 µm	1 x 60 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ²	100	130	160	200	230	260

ZINC SURFACES:

Teknos Coating System Symbol	K36g	K36h	K36i	K36j
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.11/C5-I/M A7.11/C5-M/M	A7.13/C5-I/H A7.13/C5-M/H
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	S9.11/C4/H S9.11/C5-I/L S9.11/C5-M/M	S9.12/C4/H S9.12/C5-I/M S9.12/C5-M/H	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EP120/2- ZnSaS	EP160/2- ZnSaS	EP240/3- ZnSaS	EP320/4- ZnSaS
TEKNOPLAST PRIMER 5 Epoxy Primer	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 5 Epoxy Primer	-	-	1 x 80 µm	2 x 80 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Top Coat	1 x 60 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
Total film thickness	120 µm	160 µm	240 µm	320 µm
Coating system VOC, g/m ²	100	130	200	260

Example of the coating system marking: K36a - EN ISO 12944-5/ A2.06(EP120/2-FeSa 2½).

USAGE

Protection for steel and zinc-coated surfaces exposed to atmospheric corrosion. Protection for steel surfaces subjected to chemical and mechanical abrasion.

Teknos symbol	Typical use
STEEL SURFACES:	
K36a	Steel structures under minor mechanical abrasion, such as building frames in corrosivity categories C2 and C3.
K36b	Protecting steel surfaces in corrosivity categories C2 and C3.
K36c	Protecting steel surfaces in corrosivity categories C2 and C3.
K36d	Suitable for steel surfaces exposed to special stresses. Corresponds to standards DIN 55928-T05-6-30.2 and BS 5493:1977; SK2. Corrosivity categories C3 and C4.
K36e	Protection for steel surfaces in corrosivity category C4.
K36f	Industrial steel structures exposed to exceptionally severe stress. Corrosivity categories C4 and C5.
ZINC SURFACES:	
K36g	Protection for hot-dip-galvanized surfaces indoors and outdoors in corrosivity categories C3, C4 and C5.
K36h	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.
K36i	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.
K36j	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain. It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

Old painted surfaces suitable for overcoating: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is desired, the whole surface should be cleaned and then overcoated with the system's top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOPLAST PRIMER 5	TEKNOPLAST 50	TEKNOPLAST 90			
Data Sheet No.	918	443	857			
Paint Type	two pack epoxy primer	two pack epoxy paint	two pack epoxy paint			
Colours	red, yellow, white and grey	Teknomix-tinting system	Teknomix-tinting system			
Finish	semi-matt	semigloss	gloss			
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506			
Methods of application	airless spray	airless spray	airless spray			
Airless spray nozzle	0.013 - 0.019"	0.013 - 0.019"	0.011 - 0.013"			
Application conditions						
- min. temperature °C	+10	+10	+10			
- max. relative humidity %	80	80	80			
Safety markings	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet			
Volume solids	53 ±2	53 ±2	53 ±2			
Total mass of solids g/l	abt. 900	abt. 800	abt. 760			
Volatile organic compound (VOC) g/l	abt. 440	abt. 430	abt. 430			
Recommended film thickness						
- wet µm	113 - 169	113 - 150	115 - 150			
- dry µm	60 - 90	60 - 80	60 - 80			
Theoretical spreading rate m ² /l	8.8 - 5.9	8.8 - 6.6	8.8 - 6.6			
Drying time, +23°C / 50 % RH	(dry film 60 µm)	(dry film 60 µm)	(dry film 60 µm)			
- dust free (ISO 9117-3:2010)	after 1 h	after 1 h	after 1 h			
- touch dry (DIN 53150:1995)	after 4 h	after 4 h	after 4 h			
Overcoatable, 50% RH	by itself or with TEKNOPLAST Top Coats:	by itself:	by itself:			
	min.	max.*	min.	max.*	min.	max.*
+10°C	after 6 h	after 6 months	after 6 h	after 1 month	after 6 h	after 1 month
+23°C	after 2 h	after 6 months	after 2 h	after 1 month	after 2 h	after 1 month

* Maximum overcoating interval without roughening.

TEKNOHEAT 500 ZINC SILICATE / SILICONE SYSTEMS

K37

15 13.6.2017

Protective coating systems for steel surfaces. The ethyl zinc silicate paint used produces after drying an inorganic coating comparable with galvanizing. Used alone TEKNOZINC SS or TEKNOZINC SS 1K withstands various solvents, oils, high temperatures up to +400°C, weathering and mechanical abrasion. Top coating with TEKNOHEAT improves the weather resistance of the primer.

Teknos Coating System Symbol	K37a	K37b	K37c	K37d
SFS-EN ISO 12944-5 (2007) - symbol/ corrosivity category/ durability range	-	-	-	-
The coating system structure:	ESIZn(R)SI85/2-FeSa 2½	SI15/1 FeSa 2½	ESIZn(R) SI90/2-FeSa 2½	ESIZn(R) SI85/2-FeSa 2½
TEKNOZINC SS Zinc Silicate Paint or TEKNOZINC SS 1K Zinc Silicate Paint	1 x 70 µm	-	1 x 70 µm	1 x 70 µm
TEKNOHEAT 500 Silicone Paint	1 x 15 µm	-	1 x 20 µm	-
TEKNOHEAT 500 RAL-9006 Silicone Aluminium Paint	-	1 x 15 µm	-	1 x 15 µm
Total film thickness	85 µm	15 µm	90 µm	85 µm
Coating system VOC, g/m ²		40		
with TEKNOZINC SS Zinc Silicate paint	110	-	120	110
with TEKNOZINC SS 1K Zinc Silicate paint	90	-	110	90

Example of the coating system marking: K37a - ESIZn(R)SI85/2-FeSa 2½.

USAGE Steel structures exposed to atmospheric corrosion.

Teknos symbol	Typical use
K37a	Hot steel surfaces outdoors.
K37b	Hot steel surfaces indoors up to 650°C.
K37c	System in accordance with standard SFS 5873 for steel surfaces subjected for dry heat strain (150 - 400°C) (system F20.06).
K37d	Hot steel surfaces outdoors.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating system is compatible with KORRO SS Zinc Silicate Prefabrication Primer.

PTO

Application Stir the paint thoroughly before use. In order to avoid sedimentation of the zinc dust TEKNOZINC SS and TEKNOZINC SS 1K must frequently be stirred in the course of work. TEKNOZINC SS is supplied in two packs. Mix the components with each other about half an hour before use in the ratio of 3 parts by volume silicate to 7 parts by volume zinc dust paste. Mix only an amount sufficient to be used within the pot life of 4 hours. As the specific gravity of the paint is high, it is necessary that when conventional spray is used the fluid level in the paint vessel is over the gun or at least at equal height with it.

NOTE! The dry film thickness must not exceed 100 µm. Otherwise there is a risk of cracking. Brush application easily fails to provide the recommended film thickness.

Also with TEKNOHEAT 500 the best possible durability is achieved only if the recommended film thickness is not exceeded.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance When the rust grade is Ri 4 the surfaces must be repainted completely. All old paint coats and rust is removed by scraping or blast-cleaning to grade Sa 2½. Thereafter the surface is painted as for new work.

Technical Data

Paint	TEKNOZINC SS	TEKNOZINC SS 1K	TEKNOHEAT 500
Data sheet No.	81	1861	811
Paint type	ethyl silicate zinc dust paint	ethyl silicate zinc dust paint	silicone paint
Pigmentation (anticorrosive)	zinc	zinc	lead and chromate free anti-corrosive pigments
Colours	greenish grey	greenish grey	to agreement with some restrictions
Finish	matt	matt	matt
Thinner	In special cases with TEKNOSOLV 6060, max. 5% by volume	TEKNOSOLV 1639	TEKNOSOLV 9502, TEKNOSOLV 1639
Methods of application	airless spray, conventional spray or brush	airless spray, conventional spray or brush	brush, roller, airless spray or conventional spray
Airless spray nozzle	0,018 - 0,021" (turn-nozzle)	0,015 - 0,021" (turn-nozzle)	0,013 - 0,017"
Application conditions			
- min. temperature °C	+5	+5	+5
- relative humidity %	50 - 90	50 - 90	alle 80
Safety markings	See safety data sheet	See safety data sheet	See safety data sheet
Vomule solids %	52 ±2	60 ±2	25 ±2
Total mass of solids g/l	abt. 1700	abt. 2080	abt. 420
Volatile organic compound (VOC) g/l	abt. 510	abt. 450	abt. 670
Recommended film thickness			
- wet µm	135	133	60 - 80
- dry µm	70	80	15 - 20
Theoretical spreading rate m²/l	7.4	7.5	16.7 – 12.5
Drying time, +23°C / 50 % RH	(dry film 60 µm)	(dry film 60 µm)	(dry film 15 µm)
- dust free, (ISO 9117-3:2010)	after ¼ h	after ¼ h	after 10 min
- touch dry, (DIN 53150:1995)	after ½ h	after ½ h	after 20 min
- fully cured, (ISO 9117-1:2009)	-	-	after 30 min
Overcoatable, 50 % RH	by itself or with TEKNOHEAT 500:	by itself or with TEKNOHEAT 500:	by itself:
+5°C	after 3 d (RH 90% or wetting of surfaces) or after 2 weeks (RH 50%)	7 d kuluttua (RH 90 % tai pintojen kostutus)	
+23°C	after 1 d (RH over 80% or wetting of surfaces) or after 2 weeks (RH 50%)	6 h kuluttua (RH yli 80 % tai pintojen kostutus)	
	In addition, the paint film must withstand light rubbing with a cloth wetted with TEKNOSOLV 9506.	In addition, the paint film must withstand light rubbing with a cloth wetted with TEKNOSOLV 9506.	Before a new coat is applied the first coat must be heated to the operating temperature: min +200°C, 2 h.

INERTA 210 EPOXY SYSTEMS

K38

9 12.4.2017

Protective coating systems for steel surfaces. The systems consist of the chemically curing two-pack epoxy reactive paint INERTA 210. When fully cured, the paint coat is completely odourless and tasteless.

Teknos Coating System Symbol	K38a	K38b
ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-	-
The coating system structure:	EP300/1- FeSa 2½	EP500/2- FeSa 2½
INERTA 210 Epoxy Coating	1 x 300 µm	2 x 250 µm
Total film thickness	300 µm	500 µm
Coating system VOC, g/m ²	16	13

Example of the coating system marking: K38a - EP300/1-FeSa 2½.

USAGE Protection for steel structures and equipment within the food-processing industry.

Teknos symbol	Typical use
K38a	Steel framework, guard rails, floor gratings and other structures within the food-processing industry whenever good abrasion resistance is required (statement ELI21886 by the Technical Research Centre of Finland). Application by one-component airless spray.
K38b	Immersed steel surfaces within the food-processing industry, e.g. tanks, silos, transport wagons. Application by one- or twin-feed spray.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

All prefabrication primer coats must be completely removed regardless of the binder type. In practice this means that when the surface is viewed vertically from a distance of 1 m and in normal lighting conditions the surface is of an evenly grey colour, i.e. the preparation grade is Sa 2½ (ISO 8501-1).

Application INERTA 210 is applied with an efficient airless spray, brush or roller. Mix only an amount sufficient to be used within the pot life 30 minutes. If required, the paint can be thinned by adding 5% thinner, for food-processing areas TEKNOSOLV 6060, for other areas TEKNOSOLV 9506.

The technical data of the paint is given in the table below and in the data sheet of the product.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Small damages can be prepared by discing. Feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is desired, the whole surface should be cleaned by sweep-blasting or grinding. Thereafter the system's top coat can be applied.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coating as for new work.

Technical Data

Paint	INERTA 210	
Data Sheet	No.	184
Paint Type	epoxy coating with low solvent content.	
Colours	Industrial Colour card with limitations	
Finish	gloss	
Thinner	food processing areas: TEKNOSOLV 6060, other areas: TEKNOSOLV 9506	
Methods of application	airless spray	
Airless spray nozzle	0.018 - 0.026" (turn-nozzle)	
Application conditions		
- min. temperature	°C	+15
- max. relative humidity	%	80
Safety markings	See Material Safety Data Sheet	
Volume solids	%	94 ±2
Total mass of solids	g/l	abt. 1400
Volatile organic compound (VOC)	g/l	abt. 50
Recommended film thickness		
- wet	µm	265 - 319
- dry	µm	250 - 300
Theoretical spreading rate	m²/l	3.8 - 3.1
Drying time, +23°C / 50 % RH	(dry film 250 µm)	
- dust free (ISO 9117-3:2010)	after 6 h	
- touch dry (DIN 53150:1995)	after 12 h	
- fully cured	after 7 d	
Overcoatable, 50% RH	by itself:	
	min.	max*
+15°C	after 8 h	after 36 h
+23°C	after 4 h	after 24 h

* Maximum overcoating interval without roughening.

INERTA 200 EPOXY SYSTEM

K39

10 12.4.2017

Protective coating system for steel surfaces. The system consists of the chemically curing two pack epoxy reactive paint INERTA 200. When fully cured, the paint coat is completely odourless and tasteless.

Teknos Coating System Symbol	K39a
ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-
The coating system structure:	EP500/1- FeSa 2½
INERTA 200 Epoxy Coating	1 x 500 µm
Total film thickness	500 µm
Coating system VOC, g/m²	21

The coating system marking: K39a - EP500/1-FeSa 2½.

USAGE Protection for steel structures and equipment within the food-processing industry .

Teknos symbol	Typical use
K39a	Odourless and tasteless coating for corn silos, water tanks and other areas within the food-processing industry (Statements ELI0231 and ELI0232 by the Technical Research Centre of Finland). A film thickness of 500 µm is achieved in one application.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). The profile of the blast-cleaned surface must be at least rough. See standard ISO 8503-2.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

All prefabrication primer coats must be completely removed regardless of the binder type. In practice this means that when the surface is viewed vertically from a distance of 1 m and in normal lighting conditions the surface is of an evenly grey colour, i.e. the preparation grade is Sa 2½ (ISO 8501-1).

Application INERTA 200 is applied with a hot twin-feed spray, e.g. Graco Hydra-Cat equipped with turn-nozzle. The heating of the components shall be adjusted so that the temperature in the gun is +40 - +50 C. The pot life of the mixture is then 5 minutes. More detailed data are given in the Data Sheet of INERTA 200.

The technical data of the paint are given in the table below and in the data sheet of the product.

Maintenance Touch-up: Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Small damages can be prepared by discing. Feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is desired, the whole surface should be cleaned by sweep-blasting or grinding. Thereafter the system's top coat can be applied.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		INERTA 200	
Data Sheet	No.	157	
Paint Type		solvent-free epoxy coating	
Colours		base: white, hardener: black, mixture: light grey (the base is available in a limited range of colours)	
Finish		gloss	
Methods of application		twin-feed spray, e.g. Graco Hydra-Cat	
Airless spray nozzle		0.021 - 0.026" (turn-nozzle)	
Application conditions			
- min. temperature	°C	+15	
- max. relative humidity	%	80	
Safety markings		See Material Safety Sheet	
Volume solids	%	96 ±2	
Total mass of solids	g/l	abt. 1400	
Volatile organic compound (VOC)	g/l	abt. 40	
Recommended film thickness			
- wet	µm	520	
- dry	µm	500	
Theoretical spreading rate	m ² /l	about 1.9	
Drying time, +23°C / 50 % RH		(dry film 500 µm)	
- dust free (ISO 9117-3:2010)		after 3 h	
- touch dry (ISO 9117-5:2012)		after 6 h	
- fully cured		after 7 d	
Overcoatable, 50% RH		by itself:	
		min.	max*
	+15°C	after 8 h	after 36 h
	+23°C	after 4 h	after 24 h

* Maximum overcoating interval without roughening.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

11 12.4.2017

K40

	L	M	H
C2	O		
C3			Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

Coating systems for steel and zinc surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paint can be used for the top coat.

STEEL SURFACES:

Teknos Coating System Symbol	K40a	K40b	K40c	K40d	K40e	K40f
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15/C2/M S3.16/C3/L	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S3.19/C3/H S4.13/C4/M	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EPPUR120/2- FeSa 2½	EPPUR160/3- FeSa 2½	EPPUR200/3- FeSa 2½	EPPUR240/4- FeSa 2½	EPPUR280/4- FeSa 2½	EPPUR320/4- FeSa 2½
TEKNOPLAST PRIMER 5 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 5 Epoxy Primer	-	1 x 40 µm	1 x 80 µm	2 x 60 µm	2 x 80 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² -TEKNODUR 0050 Polyurethane Top Coat	100	130	160	200	230	260

ZINC SURFACES:

Teknos Coating System Symbol	K40g	K40h	K40i	K40j
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.12/C4/H A7.12/C5-I/M A7.12/C5-M/M	A7.13/C4/H A7.13/C5-I/H A7.13/C5-M/H
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	S9.11/C4/H S9.11/C5-I/L S9.11/C5-M/M	S9.12/C4/H S9.12/C5-I/M S9.12/C5-M/H	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EPPUR120/2- ZnSaS	EPPUR160/3- ZnSaS	EPPUR240/4- ZnSaS	EPPUR320/4- ZnSaS
TEKNOPLAST PRIMER 5 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 5 Epoxy Primer	-	1 x 40 µm	2 x 60 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	240 µm	320 µm
Coating system VOC, g/m ² - TEKNODUR 0050 Polyurethane Top Coat	100	130	200	260

Example of the coating system's marking: K40a - EN ISO 12944-5/ A2.06(EPPUR120/2-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
Steel surfaces:	
K40a	Protection for steel surfaces in corrosivity categories C2 and C3.
K40b	Protection for steel surfaces in corrosivity categories C2 and C3.
K40c	Protection for steel surfaces in corrosivity category C3.
K40d	Protection for steel surfaces in corrosivity categories C3 and C4.
K40e	Protection for steel surfaces in corrosivity category C4.
K40f	Protection for steel surfaces in corrosivity categories C4 and C5.
Zinc surfaces:	
K40g	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5.
K40h	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5.
K40i	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5.
K40j	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain. It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer and KORRO SE Zinc Epoxy Prefabrication Primer.

Continues

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOPLAST PRIMER 5		TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet	No.	918	TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint Type	epoxy primer		polyurethane top coat	
Colours	red, white, yellow and grey		Teknomix tinting	
Finish	semi-matt		TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9521 or TEKNOSOLV 6220	
Methods of application	airless spray		airless spray	
Airless spray nozzle	0.013 - 0.019"		TEKNODUR 0050: 0.011 - 0.013" TEKNODUR 0090: 0.011 - 0.013"	
Application conditions				
- min. temperature	°C	+10	+5	
- max. relative humidity	%	80	80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet	
Volume solids	%	53 ±2	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)	
Total mass of solids	g/l	about 900	TEKNODUR 0050: about 870 TEKNODUR 0090: about 730	
Volatile organic compound (VOC)	g/l	about 440	TEKNODUR 0050: about 430 TEKNODUR 0090: about 460	
Recommended film thickness			TEKNODUR 0050:	
- wet	µm	75 - 188	71	
- dry	µm	40 - 100	40	
			TEKNODUR 0090:	
			80	
			40	
Theoretical spreading rate	m ² /l	13.2 - 5.3	TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5	
Drying time at +23°C / 50% RH		(dry film 60 µm)	(dry film 40 µm)	
- dust free, (ISO 9117-3:2010)		after 1 h	after 1 h	
- touch dry, (DIN 53150:1995)		after 4 h	after 6 h	
Overcoatable, 50% RH		by itself	TEKNODUR 0050: by itself	
		min.	max.*	min.
		-	-	after 20 h
				18 months or Extended**
		after 6 h	after 6 months	-
				-
		after 2 h	after 6 months	after 12 h
				18 months or Extended**
		with TEKNODUR 0050 or TEKNODUR 0090		TEKNODUR 0090: by itself
		min.	max.*	min.
		-	-	after 20 h
		after 12 h	after 7 d	-
				-
		after 4 h	after 3 d	after 12 h
				-

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

INERTA MASTIC HYBRID SYSTEMS

K41

10 9.2.2012

Coating systems for anti-corrosive painting on steel surfaces. The systems are used on objects where high solvent emissions are to be avoided and the maintenance coating can be done with water-borne painting systems. INERTA MASTIC Epoxy Coating with a low solvent content is used as a primer.

Teknos Coating System Symbol	K41a	K41b	K41c	K41d	K41e	K41f
EN ISO 12944-5 (2007) symbol/ corrosivity category / durability range	-	-	-	-	-	-
The coating system structure:	EPAY140/2- FeSa 2½	EPAY200/2- FeSa 2½	EP140/2- FeSa 2½	EP200/2- FeSa 2½	EPPUR140/2- FeSa 2½	EPPUR200/2- FeSa 2½
INERTA MASTIC or INERTA MASTIC MIOX Epoxy Coating	1 x 90 µm	1 x 160 µm	1 x 90 µm	1 x 160 µm	1 x 90 µm	1 x 160 µm
TEKNOCRYL AQUA 350 or TEKNOCRYL AQUA 390 Top Coat	1 x 50 µm	1 x 40 µm	-	-	-	-
TEKNOPOX AQUA 0350 Epoxy Top Coat	-	-	1 x 50 µm	1 x 40 µm	-	-
TEKNODUR AQUA 3390 Polyurethane Top Coat	-	-	-	-	1 x 50 µm	1 x 40 µm
Total film thickness	140 µm	200 µm	140 µm	200 µm	140 µm	200 µm
Coating System VOC, g/m ²	30	48	26	44	34	51

Example of the coating system marking: K41a - EPAY140/2-FeSa 2½.

USAGE Steel structures exposed to atmospheric corrosion indoors and outdoors when low solvent emissions (VOC) are desired.

Teknos symbol	Typical use
K41a	Protection for steel surfaces in corrosivity category C2.
K41b	Protection for steel surfaces in corrosivity categories C2 and C3.
K41c	Protection for steel surfaces indoors in corrosivity category C2.
K41d	Protection for steel surfaces indoors in corrosivity categories C2 and C3.
K41e	Protection for steel surfaces in corrosivity category C2.
K41f	Protection for steel surfaces in corrosivity categories C2 and C3.

Preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer, and KORRO SS Zinc Silicate Prefabrication Primer.

Application

Stir the components of the paint thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The primer is applied by thick painting brush or roller and is smoothed down with a brush. Airless spray can be used on the surfaces that have been cleaned with blast-cleaning. The top coat is applied by airless spray. On small areas brush can be used.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Drying of the top coat

The drying time of the top coat depends on the surface temperature, thickness of the paint film, drying temperature and ventilation.

Maintenance

Touch-up: Surfaces with rust grade Ri 3 can be repaired by touching-up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes painting the whole surface with top coat, matt down glossy old paint coats and remove all dust and grindings. Touch up the prepared patches with the primer and the top coat of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	INERTA MASTIC or INERTA MASTIC MIOX	TEKNOCRYL AQUA 350 or TEKNOCRYL AQUA 390	TEKNOPOX AQUA 0350	TEKNODUR AQUA 3390
Data Sheet no.	INERTA MASTIC: 212 INERTA MASTIC MIOX: 549	TEKNOCRYL AQUA 350: 816 TEKNOCRYL AQUA 390: 817	666	1005
Paint Type	Epoxy coating	Acrylate top coat	Epoxy top coat	Polyurethane top coat
Colours	INERTA MASTIC: alumin- ium INERTA MASTIC MIOX: grey (MIOX-pigmented)	by agreement, Teknomix-tinting	Teknomix-tinting	by agreement, Teknomix-tinting
Finish	Semi-matt	TEKNOCRYL AQUA 350: Semigloss TEKNOCRYL AQUA 390: Gloss	0350-05: semigloss 0350-09: gloss	3390-09: gloss 3390-07: abt. 70 (60° angle) 3390-05: semigloss 3390-03: semi-matt
Thinner	TEKNOSOLV 9506	WATER	WATER	WATER, TEKNOSOLV 1936
Methods of application	Airless spray , brush or roller	Airless spray, brush	Airless spray	Airless spray
Airless spray nozzle	0.015 - 0.021"	0.011 - 0.015"	0.011 - 0.015"	0.011 – 0.013"
Application conditions				
- min. temperature °C	+10	+15	+10	+10
- max. relative humidity %	80	70	70	70
Safety markings	See Material Safety Data Sheet	-	See Material Safety Data Sheet	See Material Safety Data Sheet
Volume solids %	80 ±2	40 ±2	350-05: 45 ±2 390:-09 43 ±2	42 ±2
Total mass of solids g/l	INERTA MASTIC: abt. 1200 INERTA MASTIC MIOX: abt.1300	TEKNOCRYL AQUA 350: abt. 500 TEKNOCRYL AQUA 390: abt. 460	350-05: abt. 650 390:09: abt. 610	abt. 560
Volatile organic compound (VOC) g/l	abt. 210	TEKNOCRYL AQUA 350: abt. 56 TEKNOCRYL AQUA 390: abt. 55	abt. 20	abt. 90
Recommended film thickness				
- wet µm	112 - 200	100 - 125	88 - 111	95 - 119
- dry µm	90 -160	40 - 50	40 - 50	40 - 50
Theoretical spreading rate m ² /l	8.9 - 5.0	10.0 - 8.0	11.3 - 9.0	10.5 - 8.4
Drying time, +23°C / 50 % RH - dust free (ISO 9117-3:2010) - touch dry (DIN 53150:1995) Overcoatable, 50% RH	(dry film 120 µm) after 4 h after 6 h by itself or TEKNOPLAST 50, 90, INERTA 50 or with TEKNODUR-series top coats	(dry film 40 µm) after 30 min after 40 min by itself	(dry film 60 µm) after 1 h after 5 h by itself or INERTA 50, TEKNOPLAST HS 150 or TEKNODUR-series top coats	(dry film 40 µm) after 2½ h after 6½ h by itself:
	min.	max.*	min.	max.*
+10°C	after 1 d	after 7 d	-	-
+15°C	-	-	after 8 h	-
+23°C	after 6 h	after 7 d	after 4 h	-
	min.	max.*	min.	max.*
	after 24 h	after 1 month	after 24 h	after 14 d
	-	-	-	-
	after 6 h	after 7 d	after 6 h	after 14 d

* Maximum overcoating interval without roughening.

TEKNOCRYL AQUA 350 / 390 ACRYLATE SYSTEMS

K42

11 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of physically curing, one pack acrylate paints. The paints are fast drying. The top coat is either gloss or semigloss.

STEEL SURFACES:

Teknos Coating System Symbol	K42b	K42c	K42f	K42g	K42d
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-	-	-	-	-
The coating system structure:	AY80/2- FeSa 2½	AY120/2- FeSa 2½	AY120/2- FeSa 2	AY120/2- FeSt 2	AY160/3- FeSa 2½
TEKNOCRYL AQUA PRIMER 7 Primer	1 x 40 µm	1 x 60 µm	1 x 80 µm	1 x 80 µm	2 x 60 µm
TEKNOCRYL AQUA 350 or TEKNOCRYL AQUA 390 Top Coat	1 x 40 µm	1 x 60 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	80 µm	120 µm	120 µm	120 µm	160 µm
Coating system VOC, g/m ² with TEKNOCRYL AQUA 350 Top Coat	10	16	15	15	20

ZINC SURFACES:

Teknos Coating System Symbol	K42a	K42e
EN ISO 12944-55 (2007) symbol/ corrosivity category/ durability range	-	-
The coating system structure:	AY80/2- ZnSaS	AY120/2- ZnSaS
TEKNOCRYL AQUA PRIMER 7 Primer	1 x 40 µm	1 x 80 µm
TEKNOCRYL AQUA 350 or TEKNOCRYL AQUA 390 Top Coat	1 x 40 µm	1 x 40 µm
Total film thickness	80 µm	120 µm
Coating system VOC, g/m ² with TEKNOCRYL AQUA 350 Top Coat	10	15

Example of the coating system marking: K42a - AY80/2-ZnSaS.

USAGE

Steel structures indoors and outdoors exposed to atmospheric corrosion.

Teknos symbol	Typical use
K42a	Galvanized steel structures and aluminium indoors and outdoors in corrosivity categories C1 - C2.
K42e	Galvanized steel structures and aluminium outdoors in corrosivity categories C2 - C3.
K42b	Structural steelwork indoors in corrosivity category C1.
K42c	Structural steelwork outdoors in corrosivity category C2.
K42d	Structural steelwork outdoors in corrosivity category C3.
K42f	System in accordance with standard SFS 5873 for steel surfaces in corrosivity categories C1 - C2 (system F20.02).
K42g	System in accordance with standard SFS 5873 for steel surfaces in corrosivity categories C1 - C2 (system R25.02).

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO PVB Prefabrication Primer, KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application	Stir the paint thoroughly before use. Apply the paints to a dry, dust-free surface to the required film thickness.
Drying of the paint	The technical data of the paints are given in the table below and in the data sheets of the products. Surface temperature, film thickness, drying temperature and ventilation affect the drying of the paint. The paint is dry when all water has evaporated from the paint film. It is essential that all painted surfaces have sufficient ventilation. If the painted surface will be exposed to weathering, moisture or low temperatures (below +10°C) thick paint films are to be avoided and the last coat must be allowed to dry for at least 24 hours (at +23°C) before exposure. Low temperatures and insufficient ventilation slow down the drying process.
Washing of equipment	When painting equipment used for application of solvent-borne paints is used for water-borne paints the equipment must be cleaned carefully: 1. Wash with solvent. 2. Wash with washing solvent for water-borne paints, e.g. TEKNOSOLV 9520. 3. Rinse with water. When shifting from water-borne to solvent-borne paints act in reverse order.
Maintenance	Touch-up: Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes painting the whole surface with the top coat, matt down glossy old paint coats and remove all dust and grindings. Touch up the prepared patches with the primer and the top coat of the system to the original film thickness. Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint		TEKNOCRYL AQUA PRIMER 7	TEKNOCRYL AQUA 350 or TEKNOCRYL AQUA 390		
Data Sheet	No.	815	TEKNOCRYL AQUA 350: 816 TEKNOCRYL AQUA 390: 817		
Paint Type		acrylate primer	acrylate top coat		
Colours		grey and white	By agreement, Teknomix-tinting		
Finish		semi-matt	TEKNOCRYL AQUA 350: semigloss TEKNOCRYL AQUA 390: gloss		
Thinner		water	water		
Methods of application		airless spray, brush	airless spray, brush		
Airless spray nozzle		0.013 - 0.018"	0.011 - 0.015"		
Application conditions					
- min. temperature	°C	+15	+15		
- max. relative humidity	%	70	70		
Volume solids	%	46 ±2	40 ±2		
Total mass of solids	g/l	about 760	TEKNOCRYL AQUA 350: about 500 TEKNOCRYL AQUA 390: about 460		
Volatile organic compound (VOC)	g/l	about 56	TEKNOCRYL AQUA 350: about 56 TEKNOCRYL AQUA 390: about 55		
Recommended film thickness					
- wet	µm	86 - 173	100 - 150		
- dry	µm	40 - 80	40 - 60		
Theoretical spreading rate	m ² /l	11.5 – 5.8	10.0 - 6.7		
Drying time, +23°C / 50 % RH		(dry film 40 µm)	(dry film 40 µm)		
- dust free (ISO 9117-3:2010)		after ½ h	after 30 min		
- touch dry (DIN 53150:1995)		after 1 h	after 40 min		
Overcoatable, 50% RH		by TEKNOCRYL AQUA 350 or TEKNOCRYL AQUA 390:	by itself:		
		min.	max.	min.	max.
	+15°C	after 6 h	-	after 8 h	-
	+23°C	after 3 h	-	after 4 h	-

TEKNOPLAST 50 / 90 EPOXY SYSTEMS

8 12.4.2017

K43

	L	M	H
C2	O	O	O
C3	O	O	
C4			
C5	O		

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of chemically curing, solvent-borne two-pack epoxy reactive paints. For the primer is used TEKNOZINC 90 SE Zinc Rich Epoxy Paint, that contains zinc and protects like zinc cathodically. Semigloss TEKNOPLAST 50 or gloss TEKNOPLAST 90 can be used for the top coat.

Teknos Coating System Symbol	K43a	K43b	K43c	K43d	K43e
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	-	A5I.05/C5-I/H A5M.06/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.21/C3/H S4.19/C4/L S6.05/C5-I/M	S3.22/C3/H S4.20/C4/M	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EP160/3- FeSa 2½	EPZn(R)EP200/3- FeSa 2½	EPZn(R)EP240/4- FeSa 2½	EPZn(R)EP280/4- FeSa 2½	EPZn(R)EP320/4- FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPLAST PRIMER 5 Epoxy Primer	1 x 60 µm	1 x 80 µm	2 x 70 µm	2 x 80 µm	2 x 100 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Top Coat	1 x 60 µm	1 x 80 µm	1 x 60 µm	1 x 80 µm	1 x 80 µm
Total film thickness	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ²	130	160	200	230	270

Example of the coating system marking: K43a - EN ISO 12944-5/ A3.11(EPZn(R)EP160/3-FeSa 2½).

USAGE Protection for steel surfaces exposed to atmospheric corrosion. Protection for steel surfaces subjected to humidity and splashes.

Teknos symbol	Typical use
K43a	Protection for steel surfaces in corrosivity categories C3 and C4.
K43b	Steel surfaces indoors and outdoors subjected to chemical splashes in corrosivity categories C3 and C4.
K43c	Protection for the wet end of the paper making machine also steel surfaces in corrosivity categories C4 and C5.
K43d	Protection for the wet end of the paper making machine (according to the standard of the painting system SSG 1005 - GB40 GA160 TA80) also steel surfaces in corrosivity category C4.
K43e	Protection for steel surfaces in corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 90 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 90 SE	TEKNOPLAST PRIMER 5	TEKNOPLAST 50	TEKNOPLAST 90				
Data Sheet No.	15	918	443	857				
Paint Type	epoxy zinc rich paint	two-pack epoxy primer	two-pack epoxy paint	two-pack epoxy paint				
Colours	bluish grey	red, white, grey and yellow	Teknomix-tinting system	Teknomix-tinting system				
Finish	matt	semi-matt	semigloss	gloss				
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506				
Methods of application	airless spray	airless spray	airless spray or brush	airless spray or brush				
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)	0.013 - 0.019"	0.013 - 0.019"	0.011 - 0.013"				
Application conditions								
- min. temperature °C	+10	+10	+10	+10				
- max. relative humidity %	80	80	80	80				
Safety markings	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet				
Volume solids %	53 ±2 (ISO 3233:1988)	53 ±2	53 ±2	53 ±2				
Total mass of solids g/l	about 2100	about 900	about 800	about 760				
Volatile organic compound (VOC) g/l	about 450	about 440	about 430	about 430				
Recommended film thickness								
- wet µm	75	113 - 188	113 - 150	115 - 150				
- dry µm	40	60 - 100	60 - 80	60 - 80				
Theoretical spreading rate m ² /l	13.2	8.8 - 5.3	8.8 - 6.6	8.8 - 6.6				
Drying time at +23°C / 50% RH	(dry film 40 µm)	(dry film 60 µm)	(dry film 60 µm)	(dry film 60 µm)				
- dust free, (ISO 9117-3:2010)	after 5 min	after 1 h	after 1 h	after 1 h				
- touch dry, (DIN 53150:1995)	after 30 min	after 4 h	after 4 h	after 4 h				
Overcoatable, 50% RH	by itself:	by itself, TEKNOPLAST 50 or TEKNOPLAST 90:	by itself:	by itself:				
	min.	max.*	min.	max.*	min.	max.*	min.	max.*
+10°C	after 6 h	after 18 months	after 6 h	after 6 months	after 6 h	after 1 month	after 6 h	after 1 month
+23°C	after 1 h	after 18 months	after 2 h	after 6 months	after 2 h	after 1 month	after 2 h	after 1 month
	with TEKNOPLAST PRIMER 3:							
	min.	max.*						
+10°C	after 6 h	after 3 months						
+23°C	after 1 h	after 3 months						

* Maximum overcoating interval without roughening.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K44

9 30.3.2017

	L	M	H
C2	O	O	O
C3	O	O	O
C4	O	O	
C5	O		

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy reactive paints. The systems intermediate coats contain micaceous iron oxide (MIOX). Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paint can be used for the top coat.

Teknos Coating System Symbol	K44a	K44b	K44c	K44e
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	A4.15/C4/H A5I.04/C5-I/M A5M.04/C5-M/M	-	A5I.05/C5-I/H A5M.06/C5-M/H
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	-	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EPPUR 240/4-FeSa 2½	EPZn(R)EPPUR 240/4-FeSa 2½	EPZn(R)EPPUR 280/4-FeSa 2½	EPZn(R)EPPUR 320/5-FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
INERTA 51 MIOX Epoxy Paint	2 x 75 µm	2 x 80 µm	2 x 100 µm	2 x 80 µm
TEKNODUR 0050 Polyurethane Paint or TEKNODUR 0090 Polyurethane Paint	-	1 x 40 µm	1 x 40 µm	-
TEKNODUR 0050 Polyurethane Paint	1 x 50 µm	-	-	2 x 60 µm
Total film thickness	240 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² - TEKNODUR 0050 Top Coat	180	180	210	240

Example of the coating system's marking: K44b - EN ISO 12944-5/ A4.15(EPZn(R)EPPUR 240/4-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K44a	Protection of steel surfaces in corrosivity categories C3 and C4. Mainly used for steel bridges (National Board of Roads and Waterways, instruction SILKO 3.352; coating system TIEL 4.8).
K44b	Protection for steel surfaces in corrosivity categories C4 and C5.
K44c	Protection for steel surfaces in corrosivity category C4.
K44e	Protection of steel surfaces in corrosivity categories C4 and C5 whenever very high demands are put on the durability and appearance of the coating. Used on different kinds of road and railway bridges. (National Board of Roads and Waterways, instruction SILKO 3.352; coating system TIEL 4.12) (BSK 07).

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer

PTO

Application Stir the components thoroughly before use. Mix the base and hardener carefully with each other in the proportions given on the paint label. Mix only amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness for the primer and intermediate coat in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 90 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNOZINC 90 SE		INERTA 51 MIOX		TEKNODUR 0050 or TEKNODUR 0090		
Data Sheet No.	15		197		TEKNODUR 0050: 682 TEKNODUR 0090: 683		
Paint Type	Zinc rich epoxy paint		Epoxy paint		Polyurethane top coat		
Colours	bluish grey		dark grey and red		Teknomix tinting		
Finish	matt		semi-matt		TEKNODUR 0050: semigloss TEKNODUR 0090: gloss		
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9521, TEKNOSOLV 6220		
Methods of application	airless spray		airless spray		airless spray		
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)		0.017 - 0.021"		TEKNODUR 0050: 0.011 - 0.013" TEKNODUR 0090: 0.011 - 0.013"		
Application conditions							
- min. temperature	°C	+10	+10	+10	+5		
- max. relative humidity	%	80	80	80	80		
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet		
Volume solids	%	53 ±2 (ISO 3233:1988)	55 ±2 (ISO 3233:1988)		TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)		
Total mass of solids	g/l	about 2100	about 1100		TEKNODUR 0050: about 870 TEKNODUR 0090: about 730		
Volatile organic compound (VOC)	g/l	about 450	about 400		TEKNODUR 0050: about 430 TEKNODUR 0090: about 460		
Recommended film thickness							
- wet	µm	75	136 - 180		TEKNODUR 0050: 71 - 107		
- dry	µm	40	75 - 100		40 - 60 TEKNODUR 0090: 80 40		
Theoretical spreading rate	m ² /l	13.2	7.3 - 5.5		TEKNODUR 0050: 14.0 - 9.3 TEKNODUR 0090: 12.5		
Drying time at +23°C / 50% RH							
- dust free, (ISO 9117-3:2010)		(dry film 40 µm) after 5 min	(dry film 80 µm) after 1 h		(dry film 40 µm) after 1 h		
- touch dry, (DIN 53150:1995)		after 30 min	after 4 h		after 6 h		
Overcoatable, 50% RH		by itself	by itself		TEKNODUR 0050: by itself		
		min.	max.*	min.	max.*	min.	max.*
+5°C		-	-	-	-	after 20 h	18 months or Extended**
+10°C		after 6 h	after 18 months	after 16 h	after 6 months	-	-
+23°C		after 1 h	after 18 months	after 5 h	after 6 months	after 12 h	18 months or Extended**
		with INERTA 51 MIOX		with TEKNODUR 0050		TEKNODUR 0090: by itself	
		min.	max.*	min.	max.*	min.	max.*
+5°C		-	-	-	-	after 20 h	-
+10°C		after 6 h	after 3 months	after 16 h	after 1 month	-	-
+23°C		after 1 h	after 3 months	after 5 h	after 1 month	after 12 h	-
				with TEKNODUR 0090			
				min.	max.*		
+10°C				after 16 h	after 4 d		
+23°C				after 5 h	after 2 d		

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNOTAR 200 - POLYURETHANE TAR SYSTEMS

K45

10 12.4.2017

Coating systems for anti-corrosive painting on steel surfaces. The systems consist of chemically curing, solvent-borne two pack TEKNOTAR 200 reactive paint, in which the binder is polyurethane tar. The paint gives a thick, chemical resistant coating. It can be applied at temperatures as low as -10°C.

Teknos Coating System Symbol	K45a	K45b	K45d	K45c
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-	-	-	-
The coating system structure:	PURC200/1- FeSa 2½	PURC200/2- FeSa 2½	PURC300/3- FeSa 2½	PURC400/4- FeSa 2½
TEKNOTAR 200 Urethane Tar	1 x 200 µm	2 x 100 µm	3 x 100 µm	4 x 100 µm
Total film thickness	200 µm	200 µm	300 µm	400 µm
Coating system VOC, g/m ²	130	130	200	270

Example of the coating system marking: K45a - PURC200/1-FeSa 2½.

USAGE Protection for steel surfaces exposed to atmospheric corrosion. For Protection of subterranean and submerged steel structures.

Teknos symbol	Typical use
K45a	Unheated areas. Smooth surfaces. Corrosivity category C2.
K45b	Humid areas. Objects that are difficult to paint. Corrosivity categories C2 and C3.
K45c	Subterranean and submerged constructions. Complicated structures. Corrosivity categories Im1, Im2 and Im3.
K45d	System in accordance with standard SFS 5873 for steel surfaces in corrosivity categories Im1 - Im3 (system F22.03).

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components thoroughly before use. Mix the Base and Hardener carefully with each other in the proportions given on the paint label. Mix only amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paint are given in the table below and in the data sheet of the product.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is desired, the whole surface should be cleaned. Thereafter the system's top coat can be applied.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOTAR 200	
Data Sheet	No.	232
Paint Type	purified urethane tar paint	
Colours	black and brown	
Finish	matt	
Thinner	TEKNOSOLV 9521	
Methods of application	airless spray or brush	
Airless spray nozzle	0.018 - 0.026"	
Application conditions		
- min. temperature	°C	-10
- max. relative humidity	%	95
Safety markings	See Material Safety Sheet	
Volume solids	%	60 ± 2
Total mass of solids	g/l	abt. 900
Volatile organic compound (VOC)	g/l	abt. 400
Recommended film thickness		
- wet	µm	167 - 333
- dry	µm	100 - 200
Theoretical spreading rate	m ² /l	6.0 - 3.0
Drying time, +23°C / 50 % RH	(dry film 100 µm)	
- dust free (ISO 9117-3:2010)	after 1 h	
- touch dry (DIN 53150:1995)	after 2 h	
Overcoatable, 50% RH	by itself:	
	min.	max.*
+5°C	after 36 h	after 10 d
+23°C	after 4 h	after 7 d

* Maximum overcoating interval without roughening.

INERTA MASTIC SYSTEMS

K46

14 10.2.2017

Coating systems for maintenance and touch-up painting of steel surfaces. The systems are used when environmental conditions do not allow blast-cleaning of the surface. The primer has good adhesion to wire-brushed steel and it provides a dense and thick paint coat in one application. The paint can also be used alone without a top coat. Suitable top coats are epoxy and polyurethane paints.

Teknos Coating System Symbol	K46a	K46c	K46d	K46e	K46b
EN ISO 12944-5 (2007) symbol/ corrosivity category / durability range	-	-	-	-	-
The coating system structure:	EP120/1-FeSt 2	EP160/2-FeSt 2	EP160/2-FeSt 2	EPPUR160/2-FeSt 2	EP240/2-FeSt 2
INERTA MASTIC Epoxy Coating or INERTA MASTIC MIOX Epoxy Coating	1 x 120 µm	1 x 120 µm	1 x 120 µm	1 x 120 µm	2 x 120 µm
TEKNOPLAST 50 Epoxy Top Coat or TEKNOPLAST 90 Epoxy Top Coat	-	1 x 40 µm	-	-	-
INERTA 50 Epoxy Top Coat	-	-	1 x 40 µm	-	-
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Top Coat	-	-	-	1 x 40 µm	-
Total film thickness	120 µm	160 µm	160 µm	160 µm	240 µm
Coating system VOC, g/m ² paints INERTA MASTIC, TEKNOPLAST 50, TEKNODUR 0050	32	64	71	62	63

Example of the coating system marking: K46a - EP120/1-FeSt 2.

Usage Protection for wire-brushed steel surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
K46a	Maintenance painting system that does not require a top coat. Usage e.g. under a heat insulation.
K46b	Maintenance painting system to be used when long service life and good mechanical durability is desired.
K46c	Maintenance painting system to be used when the top coat must have good abrasion and chemical resistance. The paint is semigloss.
K46d	Maintenance painting system to be used when the top coat must have good abrasion and chemical resistance. The paint is gloss.
K46e	Maintenance painting system to be used when the top coat must have good weather resistance. System in accordance with standard SFS 5873 for corrosivity category C3 (system R25.05).

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Painted surfaces: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Application Stir the components thoroughly before use. Mix the base and hardener carefully with each other in the proportions given on the paint labels. Mix only an amount sufficient to be used within the pot life of the mixture.
Apply the primer with a brush or roller and smooth the surface with a brush. To blast-cleaned surfaces it can be also applied by airless spray. The top coats are applied by brush and large surfaces by airless spray. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below. Higher temperatures speed up the drying process. The surface must be dry and free from dust.
The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up. Remove flaking paint and rust from damaged areas by scraping and wire-brushing or blast-cleaning. Extend the preparation over the edges of damages into the intact coating. Touch up the prepared patches with the paints of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	INERTA MASTIC		INERTA MASTIC MIOX		
Data Sheet No.	212		549		
Paint Type	epoxy coating		epoxy coating		
Colours	aluminium		grey (MIOX-pigmented)		
Finish	semi-matt		semi-matt		
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		
Methods of application	brush, roller, airless spray		brush, roller, airless spray		
Airless spray nozzle	0.015 - 0.021"		0.015 - 0.021"		
Application conditions					
- min. temperature °C	+10		+10		
- max. relative humidity %	80		80		
Safety markings	See Safety Data Sheet		See Safety Data Sheet		
Volume solids %	80 ±2		80 ±2		
Total mass of solids g/l	abt. 1200		abt.1300		
Volatile organic compound (VOC) g/l	abt. 210		abt. 210		
Recommended film thickness					
- wet µm	150		150		
- dry µm	120		120		
Theoretical spreading rate m ² /l	6.7		6.7		
Drying time at +23°C / 50% RH					
- dust free, (ISO 9117-3:2010)	(dry film 120 µm) after 4 h		(dry film 120 µm) after 4 h		
- touch dry, (DIN 53150:1995)	after 6 h		after 6 h		
Overcoatable, 50% RH	by itself, TEKNOPLAST 50, 90, INERTA 50, TEKNODUR 0050 or 0090		by itself		
	+10°C	min.	max.*	min.	max.*
		after 1 d	after 7 d	after 1 d	4 months or Extended**
	+23°C	after 6 h	after 7 d	after 6 h	4 months or Extended**
				by TEKNODUR 0050	
	+10°C	min.	max.*	min.	max.*
		after 1 d		after 1 d	14 d or Extended**
	+23°C	after 6 h		after 6 h	14 d or Extended**
				by TEKNOPLAST 50, 90, INERTA 50 or TEKNODUR 0090	
	+10°C	min.	max.*	min.	max.*
		after 1 d		after 1 d	7 d
	+23°C	after 6 h		after 6 h	7 d

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

Paint	TEKNOPLAST 50 or TEKNOPLAST 90		INERTA 50		TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet No.	TEKNOPLAST 50: 443 TEKNOPLAST 90: 857		10		TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint Type	epoxy top coat		epoxy top coat		polyurethane top coat	
Colours	Teknomix-Tinting		Teknomix-Tinting		Teknomix-Tinting	
Finish	TEKNOPLAST 50: semigloss TEKNOPLAST 90: gloss		gloss		TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9521 or TEKNOSOLV 6220	
Methods of application	airless spray, brush		airless spray, brush		airless spray	
Airless spray nozzle	TEKNOPLAST 50: 0.013-0.019" TEKNOPLAST 90: 0.011-0.013"		0.011 - 0.015"		TEKNODUR 0050: 0.011-0.013" TEKNODUR 0090: 0.011- 0.013"	
Application conditions						
- min. temperature °C	+10		+10		+5	
- max. relative humidity %	80		80		80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet	
Volume solids %	53 ±2		48 ±2		TEKNODUR 0050: abt. 56 ±2 (ISO 3233:1988) TEKNODUR 0090: abt. 50 ±2 (ISO 3233:1988)	
Total mass of solids g/l	TEKNOPLAST 50: abt. 800 TEKNOPLAST 90: abt. 760		abt. 700		TEKNODUR 0050: abt. 870 TEKNODUR 0090: abt. 730	
Volatile organic compound (VOC) g/l	abt. 430		abt. 480		TEKNODUR 0050: abt. 430 TEKNODUR 0090: abt. 460	
Recommended film thickness						
- wet µm	75		83		71	
- dry µm	40		40		40	
Theoretical spreading rate m ² /l	13.2		12.0		TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5	
Drying time at +23°C / 50% RH	(dry film 60 µm)		(dry film 40 µm)		(dry film 40 µm)	
- dust free, (ISO 9117-3:2010)	after 1 h		after 1 h		after 1 h	
- touch dry, (DIN 53150:1995)	after 4 h		after 6 h		after 6 h	
Overcoatable, 50% RH	by itself		by itself		TEKNODUR 0050: by itself	
	min.	max.*	min.	max.*	min.	max.*
+5°C	-	-	-	-	after 20 h	18 months or Extended**
+10°C	after 6 h	after 1 month	after 24 h	after 3 months	-	-
+23°C	after 2 h	after 1 month	after 12 h	after 3 months	after 12 h	18 months or Extended**
					TEKNODUR 0090: by itself	
	min.	max.*			min.	max.*
+5°C	after 20 h	-			after 20 h	-
+23°C	after 12 h	-			after 12 h	-

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K47

	L	M	H
C2	O	O	O
C3	O	O	
C4			
C5	O		

9 10.2.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. As primer on steel surfaces is used TEKNOZINC 90 SE Zinc Rich Epoxy Paint, which protects the steel surface cathodically, like zinc. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paint can be used as top coat.

Teknos Coating System Symbol	K47a	K47b	K47c	K47d	K47e
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	-	A5I.05/C5-I/H A5M.06/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.21/C3/H S4.19/C4/L S6.05/C5-I/M	S3.22/C3/H S4.20/C4/M	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure :	EPZn(R)EP PUR160/3- FeSa 2½	EPZn(R)EP PUR200/4- FeSa 2½	EPZn(R)EP PUR240/4- FeSa 2½	EPZn(R)EP PUR280/4- FeSa 2½	EPZn(R)EP PUR320/5- FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPLAST PRIMER 5 Epoxy Primer	1 x 80 µm	2 x 60 µm	2 x 80 µm	2 x 100 µm	3 x 80 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	130	160	200	230	260

Example of the coating system's marking: K47a - EN ISO 12944-5/A3.11(EPZn(R)EPPUR160/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K47a	Protection of steel surfaces in corrosivity categories C3 and C4.
K47b	Protection for steel surfaces in corrosivity categories C3 and C4.
K47c	Protection for steel surfaces in corrosivity categories C4 and C5.
K47d	Protection for steel surfaces in corrosivity categories C4.
K47e	Protection of steel surfaces outside exposed to very severe atmospheric corrosion, corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components thoroughly before use. Mix the base and hardener carefully with each other in the proportions given on the paint label. Mix only amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness for the primer and intermediate coat in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damages into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 90 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 90 SE	TEKNOPLAST PRIMER 5	TEKNODUR 0050 or TEKNODUR 0090			
Data Sheet No.	15	918	TEKNODUR 0050: 682 TEKNODUR 0090: 683			
Paint Type	zinc rich epoxy paint	epoxy primer	polyurethane top coat			
Colours	bluish grey	red, white, grey and yellow	Teknomix tinting			
Finish	matt	semi-matt	TEKNODUR 0050: semigloss TEKNODUR 0090: gloss			
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9521 or TEKNOSOLV 6220			
Methods of application	airless spray	airless spray	airless spray			
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)	0.013 - 0.019"	TEKNODUR 0050: 0.011 - 0.013" TEKNODUR 0090: 0.011 - 0.013"			
Application conditions - min. temperature °C - max. relative humidity %	+10 80	+10 80	+5 80			
Safety markings	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet			
Volume solids %	53 ±2 (ISO 3233:1988)	53 ±2	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)			
Total mass of solids g/l	abt. 2100	abt. 900	TEKNODUR 0050: abt. 870 TEKNODUR 0090: abt. 730			
Volatile organic compound (VOC) g/l	abt. 450	abt. 440	TEKNODUR 0050: abt. 430 TEKNODUR 0090: abt. 460			
Recommended film thickness - wet µm - dry µm	75 40	113 - 188 60 - 100	TEKNODUR 0050: 71 40 TEKNODUR 0090: 80 40			
Theoretical spreading rate m ² /l	13.2	8.8 - 5.3	TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5			
Drying time at +23°C / 50% RH - dust free, (ISO 9117-3:2010) - touch dry, (DIN 53150:1995)	(dry film 40 µm) after 5 min after 30 min	(dry film 60 µm) after 1 h after 4 h	(dry film 40 µm) after 1 h after 6 h			
Overcoatable, 50% RH	by itself or by TEKNOPLAST PRIMER 5	by itself	TEKNODUR 0050: by itself			
+5°C +10°C +23°C +10°C +23°C	min	max.*	min.	max.*	min.	max.*
	-	-	-	-	after 20 h	18 months or Extended**
	after 6 h	after 18 months	after 6 h	after 6 months	-	-
	after 1 h	after 18 months	after 2 h	after 6 months	after 12 h	18 months or Extended**
			with TEKNODUR 0050 or 0090:		TEKNODUR 0090: by itself	
	min.	max.*	min.	max.*	min.	max.*
-	-	after 20 h	-	-	-	
after 12 h	after 7 d	-	-	-	-	
after 4 h	after 3 d	after 12 h	-	-	-	

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNORAN COMBI 1485 OXIRANE ESTER SYSTEMS

K48

9 12.4.2017

Coating systems designed for stoving to protect steel surfaces e.g. agriculture machinery, gas bottles and construction machinery. The paints are suitable straight onto steel surfaces either one or two layer systems. The top coat is gloss (TEKNORAN COMBI 1485-09) or semigloss (TEKNORAN COMBI 1485-05).

Teknos Coating Systems Symbol	K48a	K48b	K48c
ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	-	-
The coating system structure:	OX80/1- FeSa 2½	OX120/1- FeSa 2½	OX120/2- FeSa 2½
TEKNORAN COMBI 1485 Oxirane Ester Paint	1 x 80 µm	1 x 120 µm	2 x 60 µm
Total film thickness	80 µm	120 µm	120 µm
Coating system VOC, g/m ²			
TEKNORAN COMBI 1485-09	31	50	50
TEKNORAN COMBI 1485-05	50	74	74

Example of the coating system marking: K48a - OX80/1-FeSa 2½.

Usage Structural metal exposed to atmospheric corrosion indoors and outdoors .

Teknos symbol	Typical use
K48a	Protection for steel structures outdoors in corrosivity category C2.
K48b	Protection for steel structures outdoors in corrosivity category C3.
K48c	Protection for steel structures outdoors in corrosivity category C3.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer.

Application Stir the components of the paints thoroughly before use.
Apply the paints onto surface that is dry and is free of dust to even and required film thickness.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes painting the whole surface with top coat, matt down glossy old paint coats and remove all dust and grindings. Touch up the prepared patches with the primer and the top coat of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNORAN COMBI 1485	
Data Sheet	No.	1114
Paint Type	oxirane ester paint	
Colours	by agreement	
Finish	1485-09: gloss 1485-05: semigloss	
Thinner	TEKNOSOLV 1639, TEKNOSOLV 6622	
Methods of application	airless spray, brush	
Airless spray nozzle	0.011 - 0.013"	
Application conditions	°C	+5
- min. temperature	%	80
- max. relative humidity		
Safety markings	See Material Safety Sheet	
Volume solids	%	1485-09: 68 ±2 1485-05: 60 ±2
Total mass of solids	g/l	1485-09: abt. 1300 1485-05: abt. 900
Volatile organic compound (VOC)	g/l	1485-09: abt. 280 1485-05: abt. 370
Recommended film thickness		1485-09: 1485-05:
- wet	µm	88 - 176 100 - 200
- dry	µm	60 - 120 60 - 120
Theoretical spreading rate	m ² /l	11.3 - 5.7 10.0 - 5.0
Drying time, +23°C / 50% RH	(dry film 80 µm)	
- dust free (ISO 9117-3:2010)	after 1 h	
- touch dry (DIN 53150:1995)	after 4 h	
- forced drying, +80°C	after 30 min	
Overcoatable, 50% RH	by itself:	
		min. max.
	10°C	after 24 h -
	23°C	after 6 h -

TEKNODUR COMBI 0450 POLYURETHANE SYSTEMS

K49

9 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems include of active pigmented two pack polyurethane reactive paint. The paint is quick drying. The system is suitable straight onto metal surfaces either one or two layer systems.

STEEL SURFACES:

Teknos Coating System Symbol	K49a	K49b	K49e
ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	-	-
The coating system structure:	PUR100/1- FeSa 2½	PUR120/2- FeSa 2½	EPPUR160/2- FeSa 2½
TEKNOPLAST PRIMER 3 Epoxy Primer	-	-	1 x 60 µm
TEKNODUR COMBI 0450 Polyurethane Paint	1 x 100 µm	2 x 60 µm	1 x 100 µm
Total film thickness	100 µm	120 µm	160 µm
Coating system VOC, g/m ²	120	150	170

ZINC SURFACES:

Teknos Coating System Symbol	K49c	K49d
ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	-
The coating system structure:	PUR100/1- ZnSaS	PUR120/2- ZnSaS
TEKNODUR COMBI 0450 Polyurethane Paint	1 x 100 µm	2 x 60 µm
Total film thickness	100 µm	120 µm
Coating system VOC, g/m ²	120	150

Example of the coating system's marking: K49a - PUR100/1-FeSa 2½.

USAGE

Structural metal exposed to atmospheric corrosion indoors and outdoors.

Teknos symbol	Typical use
K49a	Protection for steel structures outdoors in corrosivity category C2.
K49b	Protection for steel structures outdoors in corrosivity category C3.
K49c	Protection for hot-dip-galvanized structures outdoors in corrosivity category C2. System in accordance with standard SFS 5873 for hot-dip-galvanized surfaces in corrosivity categories C1 and C2 (system F30.01). Used on aluminium surfaces the same standard's system corresponding to F40.01 (EP100/1-AISaS).
K49d	Protection for hot-dip-galvanized structures outdoors in corrosivity category C3.
K49e	System in accordance with standard SFS 5873 for corrosivity category C3 (system S.3.17).

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain. It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AISaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO PVB Prefabrication Primer and KORRO E Epoxy Prefabrication Primer.

Continues

Application Stir the components of the paints thoroughly before use.
Apply the paints onto surface that is dry and is free of dust to even and required film thickness.

The technical data of the paint is given in the table below and in the data sheet of the product.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up.
Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes painting the whole surface with top coat, matt down glossy old paint coats and remove all dust and grindings. Touch up the prepared patches with the primer and the top coat of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint		TEKNOPLAST PRIMER 3	TEKNODUR COMBI 0450		
Data Sheet	No.	442	934		
Paint Type		epoxy primer	polyurethane paint		
Colours		grey, red, yellow and white	Teknomix tinting		
Finish		semi-matt	0450-05: semigloss 0450-02: semimatt		
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9521 or TEKNOSOLV 6220		
Methods of application		airless spray	airless spray		
Airless spray nozzle		0,013 - 0,019"	0.011 - 0.013"		
Application conditions					
- min. temperature	°C	+10	+5		
- max. relative humidity	%	80	80		
Safety markings		See Material Safety Sheet	See Material Safety Sheet		
Volume solids	%	53 ±2	43 ±2		
Total mass of solids	g/l	abt. 910	0450-05: abt. 630 0450-02: abt. 700		
Volatile organic compound (VOC)	g/l	abt. 440	abt. 530		
Recommended film thickness					
- wet	µm	113	139 - 232		
- dry	µm	60	60 - 100		
Theoretical spreading rate	m ² /l	8.8	7.2 - 4.3		
Drying time at +23°C / 50% RH		(dry film 60 µm)	(dry film 40 µm)		
- dust free, (ISO 9117-3:2010)		after 1 h	after 30 min		
- touch dry, (DIN 53150:1995)		after 4 h	after 5 h		
Overcoatable, 50% RH		by itself:	by itself:		
		min.	max.*	min.	max.*
+5°C		-	-	after 20 h	-
+10°C		after 6 h	after 18 months	-	-
+23°C		after 2 h	after 18 months	after 12 h	-
		with TEKNOPLAST 50:			
		min.	max.*		
+10°C		after 6 h	after 6 months		
+23°C		after 2 h	after 6 months		

* Maximum overcoating interval without roughening.

TEKNOCRYL 90 ACRYLIC SYSTEMS

K50

	L	M	H
C2	O	O	
C3	O	Zn	Zn
C4		Zn	
C5	Zn		

8 12.4.2017

Protective coating systems for metal surfaces. The systems consist of physically drying, solvent-borne one-pack paints. The binder used in these paints consists of chemical resistant halogen-free polymerizates and halogen-free plasticisers. These systems are excellent for site application.

STEEL SURFACES:

Teknos Coating System Symbol	K50a	K50b	K50c	K50d
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	A2.05/C2/H A3.05/C3/M	A3.06/C3/H A4.04/C4/L	A4.05/C4/M
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S2.12/C2/M	S3.12/C3/M	S3.13/C3/H S4.08/C4/L	S3.14/C3/H S4.09/C4-M
The coating system structure:	AY120/2- FeSa 2½	AY160/3- FeSa 2½	AY200/3- FeSa 2½	AY240/3- FeSa 2½
TEKNOCRYL PRIMER 3 Acrylic Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOCRYL 90 Acrylic Top Coat	1 x 40 µm	2 x 40 µm	2 x 60 µm	2 x 80 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm
Coating system VOC, g/m ²	160	230	300	360

ZINC AND ALUMINIUM SURFACES:

Teknos Coating System Symbol	K50e	K50g	K50f
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	A7.06/C3/M	-	A7.07/C3/H A7.07/C4/M A7.07/C5/L
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S9.06/C3/M	-	S9.07/C3/H S9.07/C4/M S9.07/C5/L
The coating system structure:	AY120/2- ZnSaS	AY120/2- Zn/AlSaS	AY160/2- ZnSaS
TEKNOCRYL PRIMER 3 Acrylic Primer	1 x 40 µm	1 x 80 µm	1 x 80 µm
TEKNOCRYL 90 Acrylic Top Coat	1 x 80 µm	1 x 40 µm	1 x 80 µm
Total film thickness	120 µm	120 µm	160 µm
Coating system VOC, g/m ²	180	160	230

Example of the coating system marking: K50b - EN ISO 12944-5/A2.05/C2/M(AY160/3-FeSa 2½).

USAGE

Metal surfaces indoors and outdoors exposed to atmospheric and chemical corrosion.

Teknos symbol	Typical use
K50a	Structural steelwork indoor and outdoors in corrosivity categories C1 and C2.
K50b	Structural steelwork outdoors in corrosivity categories C2 and C3.
K50c	Structural steelwork outdoors in corrosivity categories C3 and C4.
K50d	Structural steelwork outdoors in corrosivity categories C3 and C4.
K50e	Hot-dip-galvanized steelwork outdoors in corrosivity category C3.
K50f	Hot-dip-galvanized steelwork outdoors in corrosivity categories C3 – C5.
K50g	System in accordance with standard SFS 5873 for hot-dip-galvanized surfaces in corrosivity categories C1 - C2 (system F30.03) and for aluminium surfaces (system F40.03).

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO PVB Prefabrication Primer, KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer, KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the paint thoroughly before use.
Apply the paints to a dry, dust-free surface to the required film thickness according to the specifications. The air temperature and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below.

The paint's technical data is given in the table below and in the product's own data sheet.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching-up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges over the damaged areas into the intact coating. If required, feather the edges or prepared areas. Touch-up the prepared patches with the paints of the system to the original film thickness.
If a uniform appearance is desired, the whole surface should be cleaned according to maintenance instructions given by Teknos and then overcoated with the system's top coat.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint		TEKNOCRYL PRIMER 3	TEKNOCRYL 90		
Data Sheet	no.	615	614		
Paint Type		acrylic primer	acrylic top coat		
Colours		grey and white	Teknomix tinting		
Finish		matt	Gloss		
Thinner		TEKNOSOLV 9502, TEKNOSOLV 1639	TEKNOSOLV 9502, TEKNOSOLV 1639		
Methods of application		Airless spray	Airless spray, brush		
Airless spray nozzle		0.015"	0.013"		
Application conditions					
- min. temperature	°C	0	0		
- max. relative humidity	%	80	80		
Safety markings		See Material Safety Data Sheet	See Material Safety Data Sheet		
Volume solids	%	43 ±2	35 ±2		
Total mass of solids	g/l	abt. 760	abt. 470		
Volatile organic compound (VOC)	g/l	abt. 500	abt. 590		
Recommended film thickness					
- wet	µm	93 - 186	114 - 228		
- dry	µm	40 - 80	40 - 80		
Theoretical spreading rate	m ² /l	10.8 - 5.4	8.8 - 4.4		
Drying time, +23°C / 50 % RH		(dry film 40 µm)	(dry film 40 µm)		
- dust free (ISO 9117-3:2010)		after ½ h	after 1 h		
- touch dry (DIN 53150:1995)		after 1 h	after 2 h		
Overcoatable, 50% RH		by itself or with TEKNOCRYL 90:	by itself:		
		min.	max.	min.	max.
	0° C	after 6 h	-	after 8 h	-
	+23° C	after 3 h	-	after 4 h	-

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K53

8 12.04.2017

	L	M	H
C2	O		
C3			Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

Coating systems for steel and zinc surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paint can be used for the top coat.

STEEL SURFACES:

Teknos Coating System Symbol	K53a	K53b	K53c	K53d	K53e	K53f
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5I.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15/C2/M S3.16/C3/L	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	-	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EPPUR120/2- FeSa 2½	EPPUR160/3- FeSa 2½	EPPUR200/3- FeSa 2½	EPPUR240/3- FeSa 2½	EPPUR280/4- FeSa 2½	EPPUR320/4- FeSa 2½
TEKNOPLAST PRIMER 3 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 100 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 3 Epoxy Primer	-	1 x 40 µm	1 x 80 µm	1 x 100 µm	2 x 80 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	100	130	160	200	230	260

ZINC SURFACES:

Teknos Coating System Symbol	K53g	K53h	K53i	K53j
EN ISO 12944-5 (2007) symbol / corrosivity category/ durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	-	-	A7.13/C4/H A7.13/C5-I/H A7.13/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category/ durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	-	-	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EPPUR120/2- ZnSaS	EPPUR200/3- ZnSaS	EPPUR240/3- ZnSaS	EPPUR320/4- ZnSaS
TEKNOPLAST PRIMER 3 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 100 µm	1 x 80 µm
TEKNOPLAST PRIMER 3 Epoxy Primer	-	1 x 80 µm	1 x 100 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	200 µm	240 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	100	160	200	260

Example of the coating system marking: K53a - EN ISO 12944-5/A2.06(EPPUR120/2-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
Steel surfaces	
K53a	Protection for steel surfaces in corrosivity categories C2 and C3.
K53b	Protection for steel surfaces in corrosivity categories C2 and C3.
K53c	Protection for steel surfaces in corrosivity category C3.
K53d	With TEKNODUR 0050 Top Coat in accordance with standard SFS 5873 system (S4.13) for protection of steel surfaces in corrosivity category C4
K53e	Protection for steel surfaces in corrosivity category C4.
K53f	Protection for steel surfaces in corrosivity categories C4 and C5.
Zinc surfaces	
K53g	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5. With TEKNODUR 0050 Top Coat also in accordance with standard SFS 5873 system (F30.04) in corrosivity categories C3 and C4. Used on aluminium surfaces the same standard's system correspond to F40.04 (EPPUR 120/2-AISaS).
K53h	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5. Also in accordance with standard SFS 5873 system (F40.06) for aluminium surfaces in corrosivity categories C5 (EPPUR 200/3-AISaS).
K53i	With TEKNODUR 0050 Top Coat in accordance with standard SFS 5873 system (F30.06) for hot-dip-galvanized surfaces in corrosivity category C5.
K53j	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AISaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application

Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Continues

Maintenance Touch-up: Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOPLAST PRIMER 3		TEKNODUR 0050 or TEKNODUR 0090			
Data Sheet No.	442		TEKNODUR 0050: 682 TEKNODUR 0090: 683			
Paint Type	epoxy primer		polyurethane top coat			
Colours	grey, red, yellow and white		Teknomix tinting			
Finish	semi-matt		TEKNODUR 0050: semigloss TEKNODUR 0090: gloss			
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9521 or TEKNOSOLV 6220			
Methods of application	airless spray		airless spray			
Airless spray nozzle	0.013 - 0.019"		TEKNODUR 0050: 0.011 - 0.013" TEKNODUR 0090: 0.011 - 0.013"			
Application conditions						
- min. temperature	°C	+10	+5			
- max. relative humidity	%	80	80			
Safety markings	See Safety Data Sheet		See Safety Data Sheet			
Volume solids	%	53 ±2	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)			
Total mass of solids	abt. 910		TEKNODUR 0050: abt. 870 TEKNODUR 0090: abt. 730			
Volatile organic compound (VOC)	g/l	abt. 440	TEKNODUR 0050: abt. 430 TEKNODUR 0090: abt. 460			
Recommended film thickness			TEKNODUR 0050: 71 40			
- wet	µm	75 - 188	TEKNODUR 0090: 80 40			
- dry	µm	40 - 100				
Theoretical spreading rate	m ² /l	13.2 - 5.3	TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5			
Drying time at +23°C / 50% RH	(dry film 60 µm)		(dry film 40 µm)			
- dust free, (ISO 9117-3:2010)	after 1 h		after 1 h			
- touch dry, (DIN 53150:1995)	after 4 h		after 6 h			
Overcoatable, 50% RH	by itself		TEKNODUR 0050: by itself			
	+5°C	min.	max.*	min.	max.*	
		-	-	after 20 h	18 months or Extended**	
	+10°C	after 6 h	after 18 months	-	-	
		+23°C	after 2 h	after 18 months	after 12 h	18 months or Extended**
	with TEKNODUR 0050		TEKNODUR 0090: by itself			
	+5°C	min.	max.*	min.	max.*	
		-	-	after 20 h	-	
	+10°C	after 6 h	after 6 months	-	-	
		+23°C	after 2 h	after 6 months	after 12 h	-
	with TEKNODUR 0090					
	+10°C	min.	max.*			
		after 12 h	after 2 months			
+23°C	after 4 h	after 2 months				

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K54

8 15.02.2017

	L	M	H
C2	o	o	o
C3	o	o	
C4			
C5	o		

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. On steel surfaces is used as primer TEKNOZINC 80 SE Zinc Rich Epoxy Paint that protects the steel surface like zinc cathodically. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paint can be used for the top coat.

Teknos Coating System Symbol	K54a	K54b	K54c	K54d	K54e	K54f
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.14/C4/M	A4.15/C4/H	-	A5.05/C5-I/H A5M.06/C5-M/H
EN ISO 12944-5 (1998) symbol/ corrosivity category / durability range	S3.21/C3/H S4.19/C4/L S6.05/C5-I/M	S3.22/C3/H S4.20/C4/M	S3.22/C3/H S4.20/C4/M	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EP PUR160/3- FeSa 2½	EPZn(R)EP PUR200/4- FeSa 2½	EPZn(R)EP PUR200/3- FeSa 2½	EPZn(R)EP PUR240/4- FeSa 2½	EPZn(R)EP PUR280/4- FeSa 2½	EPZn(R)EP PUR320/5- FeSa 2½
TEKNOZINC 80 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPLAST PRIMER 3 Epoxy Primer	1 x 80 µm	2 x 60 µm	1 x 80 µm	2 x 80 µm	2 x 100 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 80 µm	1 x 40 µm	1 x 40 µm	2 x 40 µm
Total film thickness	160 µm	200 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	130	170	160	200	230	260

Example of the coating system's marking: K54a - EN ISO 12944-5/ A3.11(EPZn_(R))EPPUR160/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K54a	Protection of steel surfaces in corrosivity categories C3 and C4.
K54b	Protection for steel surfaces in corrosivity categories C3 and C4.
K54c	Protection for steel surfaces in corrosivity category C4. With TEKNODUR 0050 Top Coat also in accordance with standard SFS 5873 system (S4.20) corrosion category C4.
K54d	Protection for steel surfaces in corrosivity category C4. With TEKNODUR 0050 Top Coat also in accordance with standard SFS 5873 system (S5.09) corrosion category C5.
K54e	Protection of steel surfaces outside exposed to very severe atmospheric corrosion in corrosivity categories C4 and C5.
K54f	Protection of steel surfaces outside exposed to very severe atmospheric corrosion in corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components thoroughly before use. Mix the base and hardener carefully with each other in the proportions given on the paint label. Mix only amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness for the primer and intermediate coat in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 80 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 80 SE	TEKNOPLAST PRIMER 3	TEKNODUR 0050 or TEKNODUR 0090			
Data Sheet No.	940	442	TEKNODUR 0050: 682 TEKNODUR 0090: 683			
Paint Type	zinc rich epoxy paint	epoxy primer	polyurethane top coat			
Colours	bluish grey	red, yellow, grey and white	Teknomix tinting			
Finish	matt	semi-matt	TEKNODUR 0050: semigloss TEKNODUR 0090: gloss			
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9521, TEKNOSOLV 6220			
Methods of application	airless spray	airless spray	airless spray			
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)	0.013 - 0.019"	TEKNODUR 0050: 0.011-0.013" TEKNODUR 0090: 0.011-0.013"			
Application conditions - min. temperature °C - max. relative humidity %	+10 80	+10 80	+5 80			
Safety markings	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet			
Volume solids %	50 ±2	53 ±2	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)			
Total mass of solids	abt. 1900	abt. 910	TEKNODUR 0050: abt. 870 TEKNODUR 0090: abt. 730			
Volatile organic compound (VOC) g/l	abt. 450	abt. 440	TEKNODUR 0050: abt. 430 TEKNODUR 0090: abt. 460			
Recommended film thickness - wet µm - dry µm	80 40	113 – 190 60 – 100	TEKNODUR 0050: 71 - 142 40 - 80 TEKNODUR 0090: 80 40			
Theoretical spreading rate m ² /l	12.5	8.8 - 5.3	TEKNODUR 0050: 14.0 – 7.0 TEKNODUR 0090: 12.5			
Drying time at +23°C / 50% RH - dust free, (ISO 9117-3:2010) - touch dry, (DIN 53150:1995)	(dry film 40 µm) after 5 min after 30 min	(dry film 60 µm) after 1 h after 4 h	(dry film 40 µm) after 1 h after 6 h			
Overcoatable, 50 % RH	by itself or with TEKNOPLAST PRIMER 3:	by itself	TEKNODUR 0050: by itself			
+5°C +10°C +23°C +5°C +10°C +23°C +10°C +23°C	min.	max.*	min.	max.*	min.	max.*
	-	-	-	-	after 20 h	18 months or Extended**
	after 6 h	3 months or Extended**	after 6 h	after 18 months	-	-
	after 1 h	3 months or Extended**	after 2 h	after 18 months	after 12 h	18 months or Extended**
			with TEKNODUR 0050		TEKNODUR 0090: by itself	
	min.	max*	min.	max.*	min.	max.*
	-	-	-	-	after 20 h	-
	after 6 h	after 6 months	after 2h	after 6 months	after 12 h	-
			with TEKNODUR 0090			
	min.	max*	min.	max.*	min.	max.*
	after 12 h	after 2 months	after 4 h	after 2 months	after 4 h	after 2 months

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K55

9 15.02.2017

	L	M	H
C2	O	O	O
C3	O	O	O
C4	O		
C5	O		

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. The primer used on steel is TEKNOZINC 80 SE Zinc Rich Epoxy Paint, which protects the steel cathodically like zincing. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paints can be used for the top coat.

Teknos Coating System Symbol	K55d	K55a	K55b	K55e	K55c
EN ISO 12944-5 (2007) symbol / corrosivity category/ durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	-	A5I.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category/ durability range	S3.21/C3/H S4.19/C4/L S6.05/C5-I/M	S3.22/C3/H S4.20/C4/M	S4.21/C4/H	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EP PUR160/3- FeSa 2½	EPZn(R)EPPUR2 00/3- FeSa 2½	EPZn(R)EP PUR240/4- FeSa 2½	EPZn(R)EP PUR280/4- FeSa 2½	EPZn(R)EPPUR3 20/4- FeSa 2½
TEKNOZINC 80 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPLAST PRIMER 7 Epoxy Primer	1 x 80 µm	1 x 120 µm	2 x 80 µm	2 x 100 µm	2 x 120 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	101	120	130	152	170

Example of the coating system's marking: K55a - EN ISO 12944-5/ A4.14(EPZn(R)EPPUR200/3-FeSa 2½).

USAGE

Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K55a	Protection for steel surfaces in corrosivity categories C3 and C4.
K55b	Protection for steel surfaces in corrosivity categories C4 and C5.
K55c	Steel surfaces outdoors in severe corrosivity, corrosivity category C5.
K55d	Protection for steel surfaces in corrosivity categories C3 and C4.
K55e	Protection for steel surfaces in corrosivity category C4.

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

- Application** Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.
The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.
The technical data of the paints are given in the table below and in the data sheets of the products.
- Maintenance** **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.
NOTE! TEKNOZINC 80 SE is to be applied to bare steel only, not over an old paint coat.
Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 80 SE		TEKNOPLAST PRIMER 7		TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet no.	940		956		TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint Type	zinc rich epoxy paint		epoxy primer		polyurethane top coat	
Colours	bluish grey		grey, red and white		Teknomix tinting	
Finish	matt		semi-matt		TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9521, TEKNOSOLV 6220	
Methods of application	airless spray		airless spray		airless spray	
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)		0.013 - 0.019"		TEKNODUR 0050: 0.011 - 0.013" TEKNODUR 0090: 0.011 - 0.013"	
Application conditions						
- min. temperature °C	+10		+10		+5	
- max. relative humidity %	80		80		80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet	
Volume solids %	50 ±2		70 ±2 (ISO 3233:1988)		TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)	
Total mass of solids g/l	abt. 1900		abt. 1200		TEKNODUR 0050: 870 TEKNODUR 0090: 730	
Volatile organic compound (VOC) g/l	abt. 450		abt. 300		TEKNODUR 0050: 430 TEKNODUR 0090: 460	
Recommended film thickness						
- wet µm	80		114 – 214		TEKNODUR 0050: 71 40	
- dry µm	40		80 – 150		TEKNODUR 0090: 80 40	
Theoretical spreading rate m ² /l	12.5		8.8 - 4.7		TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5	
Drying time at +23°C / 50% RH	(dry film 40 µm) after 5 min after 30 min		(dry film 80 µm) after 1 h after 4 h		(dry film 40 µm) after 1 h after 6 h	
Overcoatable, 50% RH	by itself or TEKNOPLAST PRIMER 7		by itself or TEKNODUR 0050		TEKNODUR 0050: by itself	
+5°C	min.	max.*	min.	max.*	min.	max.*
	-	-	-	-	after 20 h	18 months or Extended**
	after 6 h	3 months or Extended**	after 8 h	12 months or Extended**	-	-
	after 1 h	3 months or Extended**	after 4 h	12 months or Extended**	after 12 h	18 months or Extended**
+10°C			by TEKNODUR 0090		TEKNODUR 0090: by itself	
	min.	max.*	min.	max.*	min.	max.*
	-	-	-	-	after 20 h	-
	after 12 h	after 7 d	-	-	-	-
+23°C			after 4 h	after 3 d	after 12 h	-
	after 4 h	after 3 d	after 12 h	-	-	-

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

INERTA MASTIC SYSTEMS (STANDARD SFS 5873)

K56

9 24.3.2017

Coating systems for maintenance and touch-up painting of steel surfaces. The systems are used when environmental conditions do not allow blast-cleaning of the surface. The primer has good adhesion to wire-brushed steel and it provides a dense and thick paint coat in one application. The paint can also be used alone without a top coat. Suitable top coats are epoxy and polyurethane paints.

Teknos Coating System Symbol	K56a	K56b	K56c	K56d	K56e
SFS 5873, symbol/ corrosivity category	R25.06/C3	R25.07/C4	R25.08/C4	R25.09/C5	R25.10/C5
The coating system structure:	EP160/2-FeSt 2	EPPUR240/3-FeSt 2	EP240/3-FeSt 2	EPPUR280/3-FeSt 2	EP300/2-FeSt 2
INERTA MASTIC Epoxy Coating	1 x 100 µm	1 x 100 µm	2 x 80 µm	2 x 120 µm	1 x 150 µm
TEKNOPLAST PRIMER 3 Epoxy Primer	-	1 x 100 µm	-	-	-
TEKNOPLAST 50 Epoxy Top Coat	-	-	1 x 80 µm	-	-
TEKNOPLAST HS 150 Epoxy Paint	1 x 60 µm	-	-	-	1 x 150 µm
TEKNODUR 0050 Polyurethane Top Coat	-	1 x 40 µm	-	1 x 40 µm	-
Total film thickness	160 µm	240 µm	240 µm	280 µm	300 µm
Coating system VOC, g/m ²	52	140	110	90	100

Example of the coating system marking: K56a - EP160/2-FeSt 2.

USAGE Protection for wire-brushed steel surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
K56a	Maintenance painting system (R25.06) in accordance with standard SFS 5873 for corrosivity category C3.
K56b	Maintenance painting system (R25.07) in accordance with standard SFS 5873 for corrosivity category C4.
K56c	Maintenance painting system (R25.08) in accordance with standard SFS 5873 for corrosivity category C4.
K56d	Maintenance painting system (R25.09) in accordance with standard SFS 5873 for corrosivity category C5.
K56e	Maintenance painting system (R25.10) in accordance with standard SFS 5873 for corrosivity category C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Painted surfaces: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

Exposed steel surfaces are cleaned from rust to preparation grade St 2 (ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Application Stir the components thoroughly before use. Mix the base and hardener carefully with each other in the proportions given on the paint label. Mix only amount sufficient to be used within the pot life of the mixture.

Apply the primer with a brush or roller and smooth the surface with brush. To blast-cleaned surfaces it can also be applied by airless spray. The top coats are applied by brush, to large surfaces by airless spray. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and wire-brushing or blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. Touch up the prepared patches with the paints of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	INERTA MASTIC		TEKNOPLAST PRIMER 3		TEKNOPLAST 50		TEKNOPLAST HS 150		TEKNODUR 0050		
Data Sheet no.	212		442		443		113		682		
Paint Type	epoxy coating		epoxy primer		epoxy top coat		epoxy paint		polyurethane top coat		
Colours	aluminium		red, yellow, grey and white		Teknomix tinting		Teknomix tinting		Teknomix tinting		
Finish	semi-matt		semi-matt		semigloss		semigloss		semigloss		
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9521, TEKNOSOLV 6220		
Methods of application	brush, roller		airless spray		airless spray		airless spray, brush		airless spray		
Airless spray nozzle	-		0.013 - 0.019"		0.013 - 0.019"		0.013 - 0.021"		0.011 - 0.013"		
Application conditions - min. temperature °C - max. relative humidity %	+10 80		+10 80		+10 80		+10 80		+5 80		
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet		
Volume solids%	80 ±2		53 ±2		53 ±2		70 ±2 (ISO 3233:1988)		56 ±2 (ISO 3233:1988)		
Total mass of solids g/l	abt. 1200		abt. 910		abt. 800		abt. 1050		abt. 870		
Volatile organic compound (VOC) g/l	abt. 210		abt. 440		abt. 430		abt. 300		abt. 430		
Recommended film thickness - wet µm - dry µm	100 - 187 80 - 150		190 100		150 80		85 - 214 60 - 150		71 40		
Theoretical spreading rate m ² /l	10.0 - 5.3		5.3		6.6		11.7 - 4.7		14.0		
Drying time at +23°C / 50% RH - dust free, (ISO 9117-3:2010) - touch dry, (DIN 53150:1995) - fully cured	(dry film 120 µm) after 4 h after 6 h -		(dry film 60 µm) after 1 h after 4 h -		(dry film 60 µm) after 1 h after 4 h -		(dry film 80 µm) after 30 min after 5 h after 7 d		(dry film 40 µm) after 1 h after 6 h -		
Overcoatable, 50% RH	by itself, TEKNOPLAST paints or TEKNODUR paints		by itself or TEKNOPLAST HS 150		by itself		by itself		by itself		
	min.	max. *	min.	max. *	min.	max. *	min.	max. *	min.	max. *	
	+5°C	-	-	-	-	-	-	-	after 20 h	18 months or Extended**	
	+10°C	after 1 d	after 7 d	after 6 h	after 18 months	after 6 h	after 1 month	after 16 h	after 2 months	-	
	+23°C	after 6 h	after 7 d	after 2 h	after 18 months	after 2 h	after 1 month	after 5 h	after 1 month	after 12 h	18 months or Extended**
	+10°C			with other TEKNOPLAST paints or with TEKNODUR 0050							
+23°C			min.	max. *							
			after 6 h	after 6 months							
			after 2 h	after 6 months							

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR AQUA 3390 EPOXY / POLYURETHANE SYSTEMS

K57

8 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, water-borne two-pack epoxy and polyurethane reactive paints. A weatherproof TEKNODUR AQUA 3390 Polyurethane Top Coat is used.

Teknos Coating System Symbol	K57a	K57b	K57c	K57d	K57e
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	-	-	-	-
The coating system structure	EPZn(R)EPPUR- 160/3- FeSa 2½	EPZn(R)EPPUR- 200/4- FeSa 2½	EPZn(R)EPPUR- 240/4- FeSa 2½	EPZn(R)EPPUR- 310/5- FeSa 2½	EPZn(R)EPPUR- 310/5- FeSa 2½
TEKNOZINC AQUA 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	-
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	-	-	-	-	1 x 40 µm
TEKNOPOX AQUA PRIMER 3 Epoxy Primer	1 x 80 µm	2 x 60 µm	2 x 80 µm	2 x 85 µm	2 x 85 µm
TEKNODUR AQUA 3390 Polyurethane Top Coat	1 x 40 µm	1 x 40 µm	1 x 40 µm	2 x 50 µm	2 x 50 µm
Total film thickness	160 µm	200 µm	240 µm	310 µm	310 µm
Coating system VOC, g/m ²	25	27	29	43	63

Example of the coating system's marking: K57a - EPZn(R)EPPUR160/3- FeSa 2½

Usage Steel surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
K57a	Protection for steel surfaces in corrosivity categories C3 and C4.
K57b	Protection for steel surfaces in corrosivity categories C3 and C4.
K57c	Protection for steel surfaces in corrosivity categories C4 and C5.
K57d	Protection for steel surfaces in corrosivity categories C4 and C5.
K57e	Protection for steel surfaces in corrosivity categories C4 and C5, hybrid system.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO SE Epoxy Prefabrication Primer, KORRO SS Zinc Silicate Prefabrication Primer.

Application Before painting the mixing and spraying equipment must be carefully rinsed with clean water. After the painting the equipment is washed first with water and then with solvent. Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture. Apply preferably by airless spray, air-assisted low-pressure spray. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust. The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the damage edges into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness. If a uniform appearance is desired, the whole surface should be cleaned and then overcoated with the system's top coat.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	TEKNOZINC AQUA 90 SE	TEKNOZINC 90 SE	TEKNOPOX AQUA PRIMER 3	TEKNODUR AQUA 3390				
Data Sheet no	1310	15	621	1005				
Paint Type	Zinc Rich Epoxy Paint	Zinc Rich Epoxy Paint	Water-based two-component epoxy primer	Water-based two-component epoxy paint				
Colours	Bluish grey	Bluish grey	Grey, red	Teknomix-tinting				
Finish	Matt	matt	semi-matt	09: gloss 07: abt. 70 (viewed at a 60° angle) 05: semigloss 03: semi-matt				
Thinner	Water, TEKNOSOLV 6060	TEKNOSOLV 9506	Water	Water, TEKNOSOLV 1936				
Methods of application	Brush, airless spray	airless spray	airless spray	Conventional spray or airless spray				
Airless spray nozzle	0.013 - 0.017"	0.018 - 0.021" (turn-nozzle)	0.013 - 0.018"	0.011 - 0.013"				
Application conditions								
- min. temperature °C	+10	+10	+10	+10				
- humidity %	30 - 70	below 80	30 - 70	30 - 70				
Safety markings	See Material Safety Sheet	See Material Safety Sheet	See Material Safety Sheet	See Material Safety Sheet				
Volume solids %	60 ±2	53 ±2 (ISO 3233:1988)	45 ±2	42 ±2				
Total mass of solids g/l	abt. 2700	abt. 2100	abt. 680	abt. 560				
Volatile organic compound (VOC) g/l	abt. 180	abt. 450	abt. 40	abt. 90				
Recommend film thickness								
- wet µm	66	75	133 - 178	95 - 119				
- dry µm	40	40	60 - 80	40 - 50				
Theoretical spreading rate m ² /l	15	13.2	7.5 - 5.6	10.5 - 8.4				
Drying time at +23°C / 50% RH	(dry film 40 µm)	(dry film 40 µm)	(dry film 60 µm) with TEKNOPOX AQUA HARDENER 0300 / with TEKNOPOX AQUA HARDENER 0300-02:	(dry film 40 µm)				
- dust free, (ISO 9117-3:2010)	after 20 min	after 5 min	after 2 h / after 50 min	after 2½ h				
- touch dry, (DIN 53150:1995)	after 1 h	after 30 min	after 10 h / after 5 h	after 6 ½ h				
- fully cured	after 7 d	after 7 d	-	-				
Overcoatable, 50% RH	by itself or TEKNOPOX AQUA PRIMER 3:	by itself:	by itself:	by itself:				
+10°C +23°C	min.	max.*	min.	max.*	min.	max.*	min.	max.*
	after 6 h	after 3 months	after 6 h	after 18 months	after 1 d	after 6 months	after 24 h	after 14 d
	after 1 h	after 3 months	after 1 h	after 18 months	after 4 h	after 6 months	after 6 h	after 14 d
			with TEKNOPOX AQUA PRIMER 3:		with TEKNODUR AQUA 3390:			
+10°C +23°C	min.	max.*	min.	max.*	min.	max.*	min.	max.*
	after 6 h	after 3 months	after 2 d	after 1 month	after 6 h	after 3 months	after 2 d	after 1 month
	after 1 h	after 3 months	after 4 h	after 1 month	after 1 h	after 3 months	after 4 h	after 1 month

*Maximum overcoating interval without roughening.

TEKNOPLAST HS 150 EPOXY SYSTEMS WITH LOW SOLVENT CONTENT

10 12.4.2017

K58

	L	M	H
C2	O	O	
C3	O		Zn
C4		Zn	Zn
C5	Zn	Zn	Zn

Coating systems for anti-corrosive painting on steel and zinc surfaces. The high solid content TEKNOPLAST HS 150 epoxy paint is used in the systems.

STEEL SURFACES:

Teknos Coating System Symbol	K58a	K58b	K58c	K58d	K58e	K58j
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.09/C4/H	A5.03/C5-I/M A5M.01/C5-M/M	A5.02/C5-I/H A5M.02/C5-M/H	A4.08/C4/M
EN ISO 12944-5 (1998) symbol / corrosivity category/ durability range	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S4.14/C4/M S6.03/C5-I/H	S7.03/C5-M/M	S4.23/C4/H S6.04/C5-I/H S7.04/C5-M/H	S3.19/C3/H S4.13/C4/M
The coating system structure:	EP160/2- FeSa 2½	EP200/2- FeSa 2½	EP280/3- FeSa 2½	EP300/2- FeSa 2½	EP320/3- FeSa 2½	EP240/3 FeSa 2½
TEKNOPLAST PRIMER 7 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 150 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 7 Epoxy Primer	-	-	1 x 100 µm	-	1 x 120 µm	1 x 80 µm
TEKNOPLAST HS 150 Epoxy Paint	1 x 80 µm	1 x 120 µm	1 x 100 µm	1 x 150 µm	1 x 120 µm	1 x 80 µm
Total film thickness	160 µm	200 µm	280 µm	300 µm	320 µm	240 µm
Coating system VOC, g/m ²	69	85	120	130	140	100

ZINC SURFACES:

Teknos Coating System Symbol	K58f	K58g	K58h	K58i
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.12/C4/H A7.12/C5-I/M A7.12/C5-M/M	A7.13/C5-I/H A7.13/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category/ durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	S9.11/C4/H S9.11/C5-I/L S9.11/C5-M/M	S9.12/C4/H S9.12/C5-I/M C9.12/C5-M/H	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EP120/2- ZnSaS	EP160/2- ZnSaS	EP240/3- ZnSaS	EP320/3 ZnSaS
TEKNOPLAST PRIMER 7 Epoxy Primer	1 x 60 µm	1 x 80 µm	2 x 80 µm	1 x 80 µm
TEKNOPLAST HS 150 Epoxy Paint	1 x 60 µm	1 x 80 µm	1 x 80 µm	2 x 120 µm
Total film thickness	120 µm	160 µm	240 µm	320 µm
Coating system VOC, g/m ²	51	69	100	140

Example of the coating system marking: K58a - EN ISO 12944-5/A2.07(EP160/2- FeSa 2½).

USAGE

Protection for steel and zinc surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
STEEL SURFACES:	
K58a	Protection for steel structures in corrosivity categories C2 and C3.
K58b	Protection for steel structures in corrosivity category C3.
K58c	Protection for steel structures in corrosivity category C4.
K58d	Protection for steel structures in corrosivity category C5. Also system (S6.14) in accordance with standard SFS 5873 in corrosivity category C5.
K58e	Protection for steel structures in corrosivity categories C4 and C5.
K58j	Protection for steel structures in corrosivity category C4.
ZINC SURFACES:	
K58f	Hot-dip-galvanized surfaces outdoors in corrosivity categories C3, C4 and C5.
K58g	Hot-dip-galvanized surfaces outdoors in corrosivity categories C4 and C5.
K58h	Hot-dip-galvanized surfaces outdoors in corrosivity categories C4 and C5.
K58i	Hot-dip-galvanized surfaces outdoors in corrosivity categories C4 and C5.

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the components thoroughly before use. Mix the Base and Hardener carefully with each other in the proportions given on the label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paint is given in the table below and in the data sheet of the product.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the damaged edges into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paint of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, since the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOPLAST PRIMER 7	TEKNOPLAST HS 150		
Data Sheet	No.	956	113		
Paint Type		epoxy primer	epoxy paint		
Colours		grey, red and white	Teknomix-tinting system		
Finish		semi-matt	semigloss		
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9506		
Methods of application		airless spray	airless spray, brush		
Airless spray nozzle		0,013 - 0,019"	0.013 - 0.021"		
Application conditions					
- min. temperature	°C	+10	+10		
- max. relative humidity	%	80	80		
Safety markings		See Safety Data Sheet	See Safety Data Sheet		
Volume solids	%	70 ±2 (ISO 3233:1988)	70 ±2 (ISO 3233:1988)		
Total mass of solids	g/l	abt. 300	abt. 1050		
Volatile organic compound (VOC)	g/l	abt. 1200	abt. 300		
Recommended film thickness					
- wet	µm	85 - 214	85 - 214		
- dry	µm	60 - 150	60 - 150		
Theoretical spreading rate	m²/l	8.8 – 4.7	11.7 – 4.7		
Drying time, +23°C / 50 % RH		(dry film 80 µm)	(dry film 80 µm)		
- dust free (ISO 9117-3:2010)		after 1 h	after 30 min		
- touch dry (DIN 53150:1995)		after 4 h	after 5 h		
- fully cured		after 7 d	after 7 d		
Overcoatable, 50% RH		by itself or with TEKNOPLAST HS 150	by itself		
		min.	max.*	min.	max.*
	+10°C	after 8 h	12 months or Extended**	after 16 h	after 2 months
	+23°C	after 4 h	12 months or Extended**	after 5 h	after 1 month

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR COMBI 3430 POLYURETHANE SYSTEMS

K59

7 12.4.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of active pigmented two pack polyurethane reactive paint. The paint is suitable straight onto metal surfaces either one or two layer systems.

STEEL SURFACES:

Teknos Coating System Symbol	K59a	K59b	K59e	K59f
ISO 12944-5 (2007) symbol / corrosivity category/ durability range	-	-	-	-
The coating system structure:	PUR100/1- FeSa 2½	PUR120/2- FeSa 2½	EPPUR160/2- FeSa 2½	PUR160/2- FeSa2½
TEKNOPLAST PRIMER 3 Epoxy Primer	-	-	1 x 60 µm	-
TEKNODUR COMBI 3430 Polyurethane Paint	1 x 100 µm	2 x 60 µm	1 x 100 µm	2 x 80 µm
Total film thickness	100 µm	120 µm	160 µm	160 µm
Coating system VOC, g/m ²	57	69	97	92

ZINC SURFACES:

Teknos Coating System Symbol	K59c	K59d
ISO 12944-5 (2007) symbol / corrosivity category/ durability range	-	-
The coating system structure:	PUR100/1- ZnSaS	PUR120/1- ZnSaS
TEKNODUR COMBI 3430 Polyurethane Paint	1 x 100 µm	1 x 120 µm
Total film thickness	100 µm	120 µm
Coating system VOC, g/m ²	57	69

Example of the coating system's marking: K59a - PUR100/1-FeSa 2½.

USAGE

Structural metal exposed to atmospheric corrosion indoors and outdoors.

Teknos symbol	Typical use
K59a	Protection for steel structures outdoors in corrosivity category C2.
K59b	Protection for steel structures outdoors in corrosivity category C3.
K59c	Protection for hot-dip-galvanized structures outdoors in corrosivity category C2. System in accordance with standard SFS 5873 for hot-dip-galvanized surfaces in corrosivity categories C1 and C2 (system F30.01). Used on aluminium surfaces the same standard's system corresponding to F40.01 (PUR100/1-AISaS).
K59d	Protection for hot-dip-galvanized structures outdoors in corrosivity category C3.
K59e	System in accordance with standard SFS 5873 for corrosivity category C3 (system S.3.17).
K59f	Protection for steel structures outdoors in corrosivity category C3.

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AISaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO PVB Prefabrication Primer and KORRO E Epoxy Prefabrication Primer.

Continues

Application Stir the components of the paints thoroughly before use.
Apply the paints onto surface that is dry and is free of dust to even and required film thickness.

The technical data of the paint is given in the table below and in the data sheet of the product.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up.
Rub down any surface defects and sharp edges. Remove flaking paint and feather the edges of prepared areas. When blast-cleaning is used, care should be taken to avoid formation of cracks in the remaining paint film. If the repair includes painting the whole surface with top coat, matt down glossy old paint coats and remove all dust and grindings. Touch up the prepared patches with the primer and the top coat of the system to the original film thickness.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint		TEKNOPLAST PRIMER 3	TEKNODUR COMBI 3430		
Data Sheet	No.	442	1144		
Paint Type		epoxy primer	polyurethane paint		
Colours		grey, red, yellow and white	by agreement		
Finish		semi-matt	3430-02: semi-matt 3430-05: semigloss 3430-09: gloss		
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9521		
Methods of application		airless spray	airless spray		
Airless spray nozzle		0.013 - 0.019"	0.015 - 0.017"		
Application conditions					
- min. temperature	°C	+10	+5		
- max. relative humidity	%	80	80		
Safety markings		See Safety Data Sheet	See Safety Data Sheet		
Volume solids	%	53 ±2 (ISO 3233:1988)	3430-02: 61±2 3430-05: 61±2 3430-09: 58±2		
Total mass of solids	g/l	abt. 910	3430-02: abt. 1120 3430-05: abt. 1120 3430-09: abt. 920		
Volatile organic compound (VOC)	g/l	abt. 440	3430-02: abt. 350 3430-05: abt. 350 3430-09: abt. 380		
Recommended film thickness					
- wet	µm	113	137 - 206		
- dry	µm	60	80 - 120		
Theoretical spreading rate	m ² /l	8.8	7.2 - 4.8		
Drying time at +23°C / 50% RH		(dry film 60 µm)	(dry film 80 µm)		
- dust free, (ISO 9117-3:2010)		after 1 h	after 45 min		
- touch dry, (DIN 53150:1995)		after 4 h	after 5 h		
- fully cured		-	after 7 d		
Overcoatable, 50% RH		by itself	by itself		
		min.	max.*	min.	max.*
+5°C		-	-	after 20 h	18 months or Extended**
+10°C		after 6 h	after 18 months	-	-
+23°C		after 2 h	after 18 months	after 4 h	18 months or Extended**
		with TEKNODUR COMBI 3430			
		min.	max.*		
+10°C		after 12 h	after 7 d		
+23°C		after 4 h	after 3 d		

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNOPOX 3290 EPOXY SYSTEMS WITH LOW SOLVENT CONTENT

K60

	L	M	H
C2	o	o	o
C3	o	o	Zn
C4		Zn	Zn
C5	Zn	Zn	Zn

6 30.3.2017

Coating systems for anti-corrosive painting on steel and zinc surfaces. In the systems high solid content TEKNOPOX 3290 Epoxy Coating is used. The systems' paints are suitable to use for maintenance painting on wire-brushed surfaces (St 2).

STEEL SURFACES:

Teknos Coating System Symbol	K60a	K60b	K60c	K60d	K60e	K60i
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	-	A3.09/C3/H	A4.08/C4/M	A5I.03/C5-I/M A5M.01/C5-M/M	A5I.02/C5-I/H A5M.02/C5-M/H	A4.09/C4/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	-	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S3.19/C3/H S4.13/C4/L	S7.03/C5-M/M	S4.23/C4/H S6.04/C5-I/H S7.04/C5-M/H	S4.14/C4/H S6.03/C5-I/H
SFS 5873 corrosivity category / durability range	-	-	R25.08/C4	R25.10/C5	-	-
The coating system structure:	EP120/1- FeSa 2½	EP200/2- FeSa 2½	EP240/2- FeSa 2½ (St 2)	EP300/2- FeSa 2½ (St 2)	EP320/3- FeSa 2½	EP280/3 FeSa 2½
INERTA MASTIC or INERTA MASTIC MI- OX Epoxy Primer	-	-	1 x 80 µm	-	1 x 80 µm	1 x 80 µm
TEKNOPOX 3290 Epoxy Coating	-	1 x 80 µm	-	1 x 150 µm	1 x 120 µm	1 x 100 µm
TEKNOPOX 3290 Epoxy Coating	1 x 120 µm	1 x 120 µm	1 x 160 µm	1 x 150 µm	1 x 120 µm	1 x 100 µm
Total film thickness	120 µm	200 µm	240 µm	300 µm	320 µm	280 µm
Coating system VOC, g/m ²	30	50	61	75	81	71

ZINC SURFACES:

Teknos Coating System Symbol	K60f	K60g	K60h	K60j
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.12/C4/H A7.12/C5-I/M A7.12/C5-M/M	A7.13/C5-I/H A7.13/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S9.10/C3/H S9.10/C4/M	S9.11/C4/H S9.11/C5-M/M	-	-
The coating system structure:	EP120/1- ZnSaS	EP160/1- ZnSaS	EP240/2- ZnSaS	EP320/2- ZnSaS
TEKNOPOX 3290 Epoxy Coating	-	-	1 x 120 µm	1 x 160 µm
TEKNOPOX 3290 Epoxy Coating	1 x 120 µm	1 x 160 µm	1 x 120 µm	1 x 160 µm
Total film thickness	120 µm	160 µm	240 µm	320 µm
Coating system VOC, g/m ²	30	40	60	80

Example of the coating system marking: K60b - EN ISO 12944-5/ A3.09(EP200/2-FeSa 2½)

Usage Protection for steel and zinc surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
STEEL SURFACES:	
K60a	Protection for steel surfaces in corrosivity categories C2 and C3.
K60b	Protection for steel surfaces in corrosivity categories C3 and C4.
K60c	Protection for steel surfaces in corrosivity categories C3 and C4. Also maintenance system in accordance with standard SFS 5873 (system R25.08) for corrosivity category C4.
K60d	Protection for steel surfaces in corrosivity category C5. Also maintenance system in accordance with standard SFS 5873 (system R25.10) for corrosivity category C4.
K60e	Protection for steel surfaces in corrosivity categories C4 and C5.
K60i	Protection for steel surfaces in corrosivity category C4.
ZINC SURFACES:	
K60f	Hot-dip-galvanized surfaces outdoors in categories C3 - C5.
K60g	Hot-dip-galvanized surfaces outdoors in categories C4 and C5.
K60h	Hot-dip-galvanized surfaces outdoors in categories C4 and C5.
K60j	Hot-dip-galvanized surfaces outdoors in categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Old painted surfaces suitable for overcoating: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the paints thoroughly before use.
Apply the paints to a dry, dust-free surface to the required film thickness according to the specifications. The air temperature and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grade Ri 3 can be repaired by touching-up.
Remove flaking paint and rust from damaged areas by scraping, wire-brushing or if possible by blast-cleaning. Extend the preparation over the edges over the damaged areas into the intact coating. If required, feather the edges of prepared areas. Touch-up the prepared patches with the paints of the system to the original film thickness.
If a uniform appearance is desired, the whole surface should be cleaned according to maintenance instructions given by Teknos and then overcoated with the system's top coat.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint	INERTA MASTIC		INERTA MASTIC MIOX		TEKNOPOX 3290	
Data Sheet No.	212		549		997	
Paint Type	epoxy coating		epoxy coating		Epoxy Coating	
Colours	aluminium		grey (MIOX-pigmented)		Teknomix-tinting	
Finish	semi-matt		semi-matt		3290-08: gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9506	
Methods of application	brush, roller, airless spray		brush, roller, airless spray		airless spray, brush	
Airless spray nozzle	0.015 - 0.021"		0.015 - 0.021"		0.013 - 0.018"	
Application conditions						
- min. temperature °C	+10		+10		+10	
- max. relative humidity %	80		80		80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet	
Volume solids %	80 ±2		80 ±2		80 ±2	
Total mass of solids g/l	abt. 1200		abt.1300		abt. 1100	
Volatile organic compound (VOC) g/l	abt. 210		abt. 210		abt. 200	
Recommended film thickness						
- wet μm	100		100		100 - 200	
- dry μm	80		80		80 - 160	
Theoretical spreading rate m ² /l	10.0		10.0		10.0 - 5.0	
Drying time at +23°C / 50% RH						
- dust free, (ISO 9117-3:2010)	(dry film 120 μm) after 4 h		(dry film 120 μm) after 4 h		(dry film 120 μm) after 4 h	
- touch dry, (DIN 53150:1995)	after 6 h		after 6 h		after 6 h	
Overcoatable, 50% RH	by itself		by itself		by itself	
	min.	max.*	min.	max.*	min.	max.*
+10°C	after 1 d	after 7 d	after 1 d	4 months or Extended*	after 1 d	after 14 d
+23°C	after 6 h	after 7 d	after 6 h	4 months or Extended**	after 8 h	after 14 d

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNOCRYL AQUA 2K 2520 ACRYLIC SYSTEMS

K61

7 12.4.2017

Coating systems for steel and zinc surfaces that will be exposed to atmospheric corrosion. The systems include a physically curing one-pack acrylate primer. For the top coat is used two-pack isocyanate free NISO acrylic paint. The paints will dry extremely fast. The top coat is either gloss or semigloss.

STEEL SURFACES:

Teknos Coating System Symbol	K61a	K61b	K61c	K61d
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-	-	-	-
The coating system structure:	AY80/2- FeSa 2½	AY120/2- FeSa 2½	AY120/2- FeSa 2½	AY160/3- FeSa 2½
TEKNOCRYL AQUA PRIMER 7 Acrylate Primer	1 x 40 µm	1 x 60 µm	1 x 80 µm	2 x 60 µm
TEKNOCRYL AQUA 2K 2520 Acrylic Top Coat	1 x 40 µm	1 x 60 µm	1 x 40 µm	1 x 40 µm
Total film thickness	80 µm	120 µm	120 µm	180 µm
Coating system VOC, g/m ²	11	16	16	20

ZINC SURFACES:

Teknos Coating System Symbol	K61e	K61f
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-	-
The coating system structure:	AY80/2- ZnSaS	AY120/2- ZnSaS
TEKNOCRYL AQUA PRIMER 7 Acrylate Primer	1 x 40 µm	1 x 80 µm
TEKNOCRYL AQUA 2K 2520 Acrylic Top Coat	1 x 40 µm	1 x 40 µm
Total film thickness	80 µm	120 µm
Coating system VOC, g/m ²	11	16

Example of the coating system marking: K61e - AY80/2-ZnSaS

USAGE Steel and zinc surfaces indoors and outdoors exposed to atmospheric corrosion.

Teknos symbol	Typical use
STEEL SURFACES:	
K61a	Structural steelwork indoors in corrosivity category C1.
K61b	Structural steelwork outdoors in corrosivity category C2.
K61c	Structural steelwork outdoors in corrosivity category C3.
K61d	Structural steelwork outdoors in corrosivity categories C2 - C3.
ZINC SURFACES:	
K61e	Zinc-coated steel structures and aluminium indoors and outdoors in corrosivity categories C1 and C2.
K61f	Zinc-coated steel structures and aluminium outdoors in corrosivity categories C2 and C3.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast-cleaning to preparation grade Sa 2½ (ISO 8501-1). Roughening the surface of thin plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain. It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO PVB Prefabrication Primer, KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer, KORRO SS Zinc Silicate Prefabrication Primer.

Continues

- Application** Stir the paint thoroughly before use.
Apply the paints to a dry, dust-free surface to the required film thickness according to the specifications.
- The paint's technical data is given in the table below and in the product's own data sheet.
- Drying of the paint** The surface temperature, film thickness, drying temperature and ventilation affect the drying process. The paint is dry when all water has evaporated from the paint film. It is essential that all painted surfaces have sufficient ventilation.
If the painted surface will be exposed to weathering, moisture or low temperatures (below +10°C) thick paint films are to be avoided and the last coat must be allowed to dry for at least 24 hours (at +23°C) before exposure. Low temperatures and insufficient ventilation will slow down the drying process. The top coat is chemically curing and is fully cured after 7 days.
- Maintenance** **Touching-up:** Surfaces with rust grades Ri 3 can be repaired by touching-up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning or if possible by blast-cleaning. Extend the preparation over the edges over the damaged areas into the intact coating. Touch-up the prepared patches with the paints of the system to the original film thickness. If a uniform appearance is desired, the whole surface should be cleaned according to maintenance instructions given by Teknos and then overcoated with the system's top coat.
- Complete renewal:** When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint		TEKNOCRYL AQUA PRIMER 7	TEKNOCRYL AQUA 2K 2520		
Data Sheet	no.	815	1133		
Paint Type		Acrylate Primer	NISO Acrylic Top Coat		
Colours		grey, white	by agreement		
Finish		semi-matt	05: semi-gloss 09: gloss		
Thinner		water	water		
Methods of application		airless spray	conventional spray, airless spray or brush		
Airless spray nozzle		0.013 - 0.018"	0.011 - 0.013"		
Application conditions					
- min. temperature	°C	+15	+10		
- max. relative humidity	%	70	70		
Safety markings		-	-		
Volume solids	%	46 ±2	05: 42 ±2 09: 42 ±2		
Total mass of solids	g/l	abt. 760	05: abt. 750 09: abt. 640		
Volatile organic compound (VOC)	g/l	abt. 56	05: abt. 60 09: abt. 60		
Recommended film thickness					
- wet	µm	86 - 173	95 - 143		
- dry	µm	40 - 80	40 - 60		
Theoretical spreading rate	m ² /l	11.5 - 5.8	10.5 - 7.0		
Drying time, +23°C / 50 % RH		(dry film 40 µm)	(dry film 40 µm)		
- dust free (ISO 9117-3:2010)		after ½ h	after 20 min		
- touch dry (DIN 53150:1995)		after 1 h	after 3 h		
Overcoatable, 50% RH		by itself or TEKNOCRYL AQUA:	by itself:		
		min.	max.	min.	max.
	+10° C	after 6 h	-	after 16 h	after 6 months
	+23° C	after 3 h	-	after 3 h	after 6 months

TEKNODUR 3410 POLYURETHANE SYSTEMS

K63

	L	M	H
C2	O	O	O
C3	O	O	
C4			
C5	O		

6 30.03.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. The primer used on steel is TEKNOZINC 80 SE Zinc Rich Epoxy Paint, which protects the steel cathodically like zincing. TEKNODUR 3410 weather-resistant polyurethane paint can be used for the top coat.

Teknos Coating System Symbol	K63a	K63b	K63c	K63d	K63e
EN ISO 12944-5 (2007) symbol / corrosivity category/ durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	-	A5I.05/C5-I/H A5M.06/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category/ durability range	S3.21/C3/H S4.19/C4/L S6.05/C5-I/M	S3.22/C3/H S4.20/C4/M	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EP PUR160/3- FeSa 2½	EPZn(R)EP PUR200/3- FeSa 2½	EPZn(R)EP PUR240/3- FeSa 2½	EPZn(R)EP PUR280/4- FeSa 2½	EPZn(R)EP PUR320/4- FeSa 2½
TEKNOZINC 80 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPLAST PRIMER 7 Epoxy Primer	1 x 80 µm	1 x 100 µm	1 x 120 µm	2 x 90 µm	2 x 110 µm
TEKNODUR 3410 Polyurethane Top Coat	1 x 40 µm	1 x 60 µm	1 x 80 µm	1 x 60 µm	1 x 60 µm
Total film thickness	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 3410-09 Top Coat	90	110	130	150	160

Example of the coating system's marking: K63a - EN ISO 12944-5/ A3.11(EPZn(R)EPPUR160/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K63a	Protection for steel surfaces in corrosivity categories C3 and C4.
K63b	Protection for steel surfaces in corrosivity categories C3 and C4.
K63c	Protection for steel surfaces outdoors in corrosivity categories C4 and C5.
K63d	Protection for steel surfaces in corrosivity category C4.
K63e	Protection for steel surfaces outdoors in extremely strenuous conditions in corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 80 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 80 SE		TEKNOPLAST PRIMER 7		TEKNODUR 3410	
Data Sheet no.	940		956		993	
Paint Type	zinc rich epoxy paint		epoxy primer		polyurethane top coat	
Colours	bluish grey		grey, red and white		by agreement	
Finish	matt		semi-matt		TEKNODUR 3410-05: semi-gloss TEKNODUR 3410-09: gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506, TEKNOSOLV 9530		TEKNOSOLV 9526	
Methods of application	airless spray		airless spray		airless spray	
Airless spray nozzle	0.018 - 0.021" (turn-nozzle)		0.013 - 0.019"		0.013 - 0.015	
Application conditions						
- min. temperature °C	+10		+10		+5	
- max. relative humidity %	80		80		80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet	
Volume solids %	50 ±2		70 ±2 (ISO 3233:1988)		TEKNODUR 3410-05: 63 ±2 TEKNODUR 3410-09: 60 ±2	
Total mass of solids g/l	abt. 1900		abt. 1200		TEKNODUR 3410-05: abt. 980 TEKNODUR 3410-09: abt. 930	
Volatile organic compound (VOC) g/l	abt. 450		abt. 300		TEKNODUR 3410-05: abt. 330 TEKNODUR 3410-09: abt. 350	
Recommended film thickness					TEKNODUR 3410-09	
- wet µm	80		114 - 171		67 - 167	
- dry µm	40		80 - 120		40 - 100	
Theoretical spreading rate m ² /l	12.5		8.8 - 5.8		16.1 - 6.0	
Drying time at +23°C / 50% RH						
- dust free, (ISO 9117-3:2010)	(dry film 40 µm) after 5 min		(dry film 80 µm) after 1 h		(dry film 40 µm) after 40 min.	
- touch dry, (DIN 53150:1995)	after 30 min		after 4 h		after 6 h	
- fully cured	after 7 d		after 7 d		after 7 d	
Overcoatable, 50% RH	by itself or with TEKNOPLAST PRIMER 7		by itself		by itself	
	min.	max.*	min.	max.*	min.	max.*
+5°C	-	-	-	-	after 20 h	-
+10°C	after 6 h	3 months or Extended**	after 8 h	12 months or Extended**	-	-
+23°C	after 1 h	3 months or Extended**	after 4 h	12 months or Extended**	after 12 h	-
			with TEKNODUR 3410			
			min.	max.*		
+10°C			after 12 h	after 7 d		
+23°C			after 4 h	after 3 d		

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

INERTA 50 A –EPOXY SYSTEM

K64

4 12.4.2017

Intended to be used in nuclear power stations as a protective coating system for steel surfaces. The system consists of chemically curing, solvent-borne two pack epoxy reactive paints. Gloss INERTA 50 A Epoxy Reactive Paint is used as for the top coat. The system comes up to the specifications of STUK-YTO-TR 210.

Teknos Coating System Symbol	K64a
ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.09/C3/H
ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.18/C3/H
The coating system structure:	EP200/3- FeSa 2½
INERTA PRIMER 5 A Epoxy Primer	1 x 80 µm
INERTA 51 A Epoxy Reactive Paint	1 x 80 µm
INERTA 50 A Epoxy Reactive Top Coat	1 x 40 µm
Total film thickness	200 µm
Paint system VOC, g/m ²	180

Marking of the coating system: K64a - ISO 12944-5/A3.09(EP200/3-FeSa2½).

USAGE Protection for steel surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
K64a	For protection of steel surfaces in nuclear power stations in controlled indoor areas that are exposed to radiation and decontamination in corrosivity category C3.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

**Prefabrication
Primer**

The coating system is compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Repair, maintenance and renewal painting is done according to separate instructions given for the nuclear power plant, observing local orders of the authorities that are in force.

Technical Data

Paint		INERTA PRIMER 5 A	INERTA 51 A	INERTA 50 A			
Data Sheet	No.	1193	1194	1195			
Paint Type		two pack epoxy primer	two pack epoxy reactive paint	two pack epoxy reactive top coat			
Colours		red, yellow, grey and white	white, grey	by agreement			
Finish		matt	semi-matt	gloss			
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506			
Methods of application		airless spray	airless spray	airless spray, brush			
Airless spray nozzle		0.013 - 0.018"	0.017 - 0.021"	0.011 - 0.015"			
Application conditions							
- min. temperature	°C	+10	+10	+10			
- max. relative humidity	%	80	80	80			
Safety markings		See Material Safety Data Sheet	See Material Safety Data Sheet	See Material Safety Data Sheet			
Volume solids	%	55 ±2	50 ±2	48 ±2			
Total mass of solids	g/l	abt. 1000	abt. 970	abt. 700			
Volatile organic compound (VOC)	g/l	abt. 430	abt. 440	abt. 480			
Recommended film thickness							
- wet	µm	145	160	83			
- dry	µm	80	80	40			
Theoretical spreading rate	m ² /l	6.9	6.3	12.0			
Drying time, +23°C / 50 % RH		(dry film 60 µm)	(dry film 50 µm)	(dry film 40 µm)			
- dust free (ISO 9117-3:2010)		after 1 h	after 1 h	after 1 h			
- touch dry (DIN 53150:1995)		after 3 h	after 5 h	after 6 h			
Overcoatable, 50% RH		by itself, INERTA 51 A or with INERTA 50 A:	by itself or with INERTA 50 A:	by itself:			
		min.	max*	min.	max*		
+10°C		after 12 h	after 6 months	after 12 h	after 6 months	after 24 h	after 3 months
+23°C		after 4 h	after 6 months	after 4 h	after 6 months	after 12 h	after 3 months

* Maximum overcoating interval without roughening.

TEKNODUR 3410 POLYURETHANE SYSTEMS WITH LOW SOLVENT CONTENT

6 30.3.2017

K65

	L	M	H
C2	O	O	Zn
C3	O		
C4	O	Zn	Zn
C5	Zn	Zn	Zn

Coating systems for steel and zinc surfaces that will be exposed to atmospheric corrosion. The systems consist of high solid content TEKNOPLAST PRIMER 7 Epoxy Primer and TEKNODUR 3410 Polyurethane Top Coat.

STEEL SURFACES:

Teknos Coating System Symbol	K65a	K65b	K65c	K65d
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.09/C4/H	A5I.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S2.16/C2/H S3.17/C3M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EPPUR160/2- FeSa 2½	EPPUR200/3 FeSa 2½	EPPUR280/3- FeSa 2½	EPPUR320/4- FeSa 2½
TEKNOPLAST PRIMER 7 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPLAST PRIMER 7 Epoxy Primer	-	1 x 60 µm	1 x 120 µm	2 x 80 µm
TEKNODUR 3410 Polyurethane Top Coat	1 x 80 µm	1 x 60 µm	1 x 80 µm	1 x 80 µm
Total film thickness	160 µm	200 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 3410-09 Polyurethane Top Coat	81	95	132	138

ZINC SURFACES:

Teknos Coating System Symbol	K65e	K65f	K65g
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.12/C4/H A7.12/C5-I/M A7.12/C5-M/M
EN ISO 12944-5 (1998) symbol/ corrosivity category/ durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	S9.11/C4/H S9.11/C5-I/L S9.11/C5-M/M	S9.12/C4/H S9.12/C5-I/M S9.12/C5-M/H
The coating system structure:	EPPUR120/2- ZnSaS	EPPUR160/2- ZnSaS	EPPUR240/3- ZnSaS
TEKNOPLAST PRIMER 7 Epoxy Primer	1 x 60 µm	1 x 80 µm	2 x 80 µm
TEKNODUR 3410 Polyurethane Top Coat	1 x 60 µm	1 x 80 µm	1 x 80 µm
Total film thickness	120 µm	160 µm	240 µm
Coating system VOC, g/m ²	61	81	115

Example of the coating system marking: K65a - EN ISO 12944-5/ A2.07 (EPPUR160/2-FeSa 2½)

USAGE

Protection for steel and zinc surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
STEEL SURFACES:	
K65a	Protection for steel structures in corrosivity categories C2 and C3.
K65b	Protection for steel structures in corrosivity category C3.
K65c	Protection for steel structures in corrosivity categories C3 and C4.
K65d	Protection for steel structures in corrosivity categories C4 and C5.
ZINC SURFACES:	
K65e	Hot-dip-galvanized surfaces outdoors in corrosivity categories C3, C4 and C5.
K65f	Hot-dip-galvanized surfaces outdoors in corrosivity categories C4 and C5.
K65g	Hot-dip-galvanized surfaces outdoors in corrosivity categories C4 and C5.

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AISaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the components thoroughly before use. Mix the Base and Hardener carefully with each other in the proportions given on the label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paint is given in the table below and in the data sheet of the product.

Maintenance **Touch-up:** Surfaces with rust grade Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the damaged edges into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paint of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, since the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOPLAST PRIMER 7		TEKNODUR 3410	
Data Sheet No.	956		993	
Paint Type	epoxy primer		polyurethane top Coat	
Colours	grey, red and white		by agreement	
Finish	semi-matt		TEKNODUR 3410-05: semigloss TEKNODUR 3410-09: gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9526	
Methods of application	airless spray		airless spray	
Airless spray nozzle	0.013 - 0.019"		0.013 - 0.015"	
Application conditions				
- min. temperature	°C	+10	+5	
- max. relative humidity	%	80	80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet	
Volume solids	%	70 ±2 (ISO 3233:1988)	TEKNODUR 3410-05: 63 ±2 TEKNODUR 3410-09: 60 ±2	
Total mass of solids	g/l	abt. 1200	TEKNODUR 3410-05: abt. 980 TEKNODUR 3410-09: abt. 930	
Volatile organic compound (VOC)	g/l	abt. 300	TEKNODUR 3410-05: abt. 330 TEKNODUR 3410-09: abt. 350	
Recommended film thickness			TEKNODUR 3410-09	
- wet	µm	85 - 171	100 - 133	
- dry	µm	60 - 120	60 - 80	
Theoretical spreading rate	m ² /l	11.7 - 5.8	10.0 - 8.1	
Drying time, +23°C / 50 % RH		(dry film 80 µm)	(dry film 60 µm)	
- dust free (ISO 9117-3:2010)		after 1 h	after 40 min.	
- touch dry (DIN 53150:1995)		after 4 h	after 6 h	
- fully cured		after 7 d	after 7 d	
Overcoatable, 50% RH		by itself	by itself	
		min.	max.*	min.
		-	-	after 20 h
	+5°C			-
	+10°C	after 8 h	12 months or Extended**	-
	+23°C	after 4 h	12 months or Extended**	after 12 h
		with TEKNODUR 3410		
		min.	max.*	
	+10°C	after 12 h	after 7 d	
	+23°C	after 4 h	after 3 d	

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR COMBI 3560 POLYURETHANE SYSTEMS

K67

5 9.2.2012

Protective coating systems for steel surfaces. The systems consist of chemically curing, solvent-borne two-pack epoxy and polyurethane reaction paints. Semigloss or gloss TEKNODUR COMBI 3560 weather-resistant polyurethane paint can be used as top coat.

Teknos coating system symbol	K67b
EN ISO 12944-5 (2007) symbol/corrosivity category/durability range	-
The coating system structure:	EPZn(R)PUR 200/2-FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm
TEKNODUR COMBI 3560-05 Polyurethane paint or TEKNODUR COMBI 3560-09 Polyurethane Paint	1 x 160 µm
Total film thickness	200 µm
Coating system VOC, g/m ² with the top coat TEKNODUR COMBI 3560-05	53

Example of the coating system marking: K67b - EPZn(R)PUR 200/2-FeSa 2½.

Usage Protection for steel surfaces exposed to atmospheric corrosion, when good colour and gloss retention is required of the top coat.

Teknos symbol	Typical use
K67b	Protection of steel surfaces in corrosivity categories C3, C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards ISO 12944-4 and ISO 8501-2.

Prefabrication primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

PTO

Application Stir the components of the paints thoroughly before use. Mix base and hardener carefully with each other in the proportions given on the paint label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thicknesses for primers and intermediate paints in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast cleaning. Extend the preparation over the edges of damages into the intact coating. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 90 SE is to be applied only on bare steel, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast clean the whole surface to preparation grade Sa 2½ and paint from priming to top coat as for new work.

Technical data

Paint		TEKNOZINC 90 SE	TEKNODUR COMBI 3560-05 or TEKNODUR COMBI 3560-09
Data sheet	No.	15	TEKNODUR COMBI 3560-05: 1348 TEKNODUR COMBI 3560-09: 1165
Paint type		epoxy zinc rich paint	polyurethane paint
Colours		bluish grey	by agreement
Gloss		mat	TEKNODUR COMBI 3560-05: semigloss TEKNODUR COMBI 3560-09: gloss
Thinner, clean up of equipment		TEKNOSOLV 9506	TEKNOSOLV 1129, TEKNOSOLV 9526, TEKNOSOLV 9533
Methods of application		airless spray	airless spray
Airless spray nozzle		0.018–0.021" (turn-nozzle)	TEKNODUR COMBI 3560-05: 0.013–0.017" TEKNODUR COMBI 3560-09: 0.013–0.017"
Application conditions			
- min. temperature	°C	+10	+5
- max. relative humidity	%	80	80
Safety markings		See Material Safety Data Sheet	See Material Safety Data Sheet
Volume solids	%	53 ±2 (ISO 3233:1988)	TEKNODUR COMBI 3560-05: 90 ±2 TEKNODUR COMBI 3560-09: 93 ±2
Total mass of solids	g/l	abt. 2100	TEKNODUR COMBI 3560-05: abt. 1350 TEKNODUR COMBI 3560-09: abt. 1600
Volatile organic compound (VOC)	g/l	abt. 450	TEKNODUR COMBI 3560-05: abt. 100 TEKNODUR COMBI 3560-09: abt. 70
Recommended film thickness			TEKNODUR COMBI 3560-05: 178 160 TEKNODUR COMBI 3560-09: 172 160
- wet	µm	75	
- dry	µm	40	
Theoretical spreading rate	m ² /l	13.2	TEKNODUR COMBI 3560-05: 6.0 TEKNODUR COMBI 3560-09: 6.2
Drying time, +23 °C / 50 % RH		(dry film 40 µm)	(dry film 160 µm)
- dust free, (ISO 9117-3:2010)		after 5 min	after 40 min
- touch dry, (DIN 53150:1995)		after 30 min	after 3 h
Overcoatable, 50% RH		with TEKNODUR COMBI 3560:	by itself:
		min.	max
	+5 °C	-	after 12 h
	+10 °C	after 6 h	after 14 d
	+23 °C	after 1 h	after 7 d

* Maximum overcoating interval without roughening.

INERTA MASTIC SYSTEMS

K68

	L	M	H
C2	O	O	O
C3	O	O	O
C4	O		
C5	O		

5 30.3.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. The primer used on steel is TEKNOZINC 80 SE or TEKNOZINC 90 SE Zinc Rich Epoxy Paint, which protects the steel cathodically like zincing. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paints can be used for the top coat.

Teknos Coating System Symbol	K68a	K68b	K68c
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category/ durability range	A4.14/C4/M	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	A5I.05/C5-I/H A5M.06/C5-M/H
SFS-EN ISO 12944-5 (1998) symbol / corrosivity category/ durability range	S3.22/C3/H S4.20/C4/M	S4.21/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EPPUR200/3- FeSa 2½	EPZn(R)EP PUR240/3- FeSa 2½	EPZn(R)EPPUR320/4- FeSa 2½
TEKNOZINC 80 SE or TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm
INERTA MASTIC or INERTA MASTIC MIOX Epoxy Coating	1 x 100 µm	1 x 140 µm	2 x 110 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 60 µm	1 x 60 µm	1 x 60 µm
Total film thickness	200 µm	240 µm	320 µm
Coating system VOC, g/m ² with primer TEKNOZINC 80 SE and TEKNODUR 0050 Top Coat	120	130	160

Example of the coating system's marking: K68a - SFS-EN ISO 12944-5/ A4.14(EPZn(R)EPPUR200/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K68a	Protection for steel surfaces in corrosivity categories C3 and C4.
K68b	Protection for steel surfaces in corrosivity categories C4 and C5.
K68c	Steel surfaces outdoors in severe corrosivity, corrosivity category C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 80 SE / 90 SE are applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 80 SE	TEKNOZINC 90 SE	INERTA MASTIC	INERTA MASTIC MIOX
Data Sheet no.	940	15	212	549
Paint Type	zinc rich epoxy paint	zinc rich epoxy paint	epoxy coating	epoxy coating
Colours	bluish grey	bluish grey	aluminium, white	grey, red (MIOX-pigmented)
Finish	matt	matt	semi-matt	semi-matt
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9506
Methods of application	airless spray	airless spray	airless spray, brush or roller	airless spray, brush or roller
Airless spray nozzle	0,018 - 0,021" (turn-nozzle)	0,018 - 0,021" (turn-nozzle)	0,015 - 0,021"	0,015 - 0,021"
Application conditions				
- min. temperature °C	+10	+10	+10	+10
- max. relative humidity %	80	80	80	80
Safety markings	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet
Volume solids %	50 ±2	53 ±2	80 ±2	80 ±2
Total mass of solids g/l	abt. 1900	abt. 2100	abt. 1200	abt. 1300
Volatile organic compound (VOC) g/l	abt. 450	abt. 450	abt. 210	abt. 210
Recommended film thickness				
- wet µm	80	75	125 - 175	125 - 175
- dry µm	40	40	100 - 140	100 - 140
Theoretical spreading rate m²/l	12.5	13.2	8.0 - 5.7	8.0 - 5.7
Drying time at +23°C / 50% RH	(dry film 40 µm)	(dry film 40 µm)	(dry film 120 µm)	(dry film 120 µm)
- dust free, (ISO 9117-3:2010)	after 5 min	after 5 min	after 4 h	after 4 h
- touch dry, (DIN 53150:1995)	after 30 min	after 30 min	after 6 h	after 6 h
Overcoatable, 50% RH	by itself or with INERTA MASTIC (MIOX)	by itself	by itself or with TEKNODUR topcoats	by itself
+10°C +23°C +10°C +23°C +10°C +23°C	min.	min.	min.	min.
	max.*	max.*	max.*	max.*
	after 6 h	after 6 h	after 1 d	after 1 d
	3 months or Extended**	3 months or Extended**	after 7 d	4 months or Extended**
	after 1 h	after 1 h	after 6 h	after 6 h
	3 months or Extended**	3 months or Extended**	after 7 d	4 months or Extended**
	with INERTA MASTIC (MIOX)		with TEKNODUR 0050	
	min.	min.	min.	min.
	max.*	max.*	max.*	max.*
	after 6 h	after 6 h	after 1 d	14 d or Extended**
	after 1 h	after 1 h	after 6 h	14 d or Extended**
	with TEKNODUR 0090		with TEKNODUR 0090	
min.	min.	min.	min.	
max.*	max.*	max.*	max.*	
after 1 d	after 1 d	after 7 d	after 7 d	
after 6 h	after 6 h	after 7 d	after 7 d	

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

Paint		TEKNODUR 0050	TEKNODUR 0090		
Data Sheet	no.	682	683		
Paint Type		polyurethane top coat	polyurethane top coat		
Colours		Teknomix tinting	Teknomix tinting		
Finish		semigloss	gloss		
Thinner		TEKNOSOLV 9521, TEKNOSOLV 6220	TEKNOSOLV 9521, TEKNOSOLV 6220		
Methods of application		airless spray	airless spray		
Airless spray nozzle		0,011 - 0,013"	0,011 - 0,013"		
Application conditions					
- min. temperature	°C	+5	+5		
- max. relative humidity	%	80	80		
Safety markings		See Safety Data Sheet	See Safety Data Sheet		
Volume solids	%	56 ±2 (ISO 3233:1988)	50 ±2 (ISO 3233:1988)		
Total mass of solids	g/l	abt. 870	abt. 730		
Volatile organic compound (VOC)	g/l	abt. 430	abt. 460		
Recommended film thickness					
- wet	µm	107	120		
- dry	µm	60	60		
Theoretical spreading rate	m ² /l	9.3	8.3		
Drying time at +23°C / 50% RH		(dry film 40 µm)	(dry film 40 µm)		
- dust free, (ISO 9117-3:2010)		after 1 h	after 1 h		
- touch dry, (DIN 53150:1995)		after 6 h	after 6 h		
Overcoatable, 50% RH		by itself	by itself		
		min.	max.*	min.	max.*
+5°C		after 20 h	18 months or Extended**	after 20 h	-
+23°C		after 12 h	18 months or Extended**	after 12 h	-

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K69

4 30.3.2017

	L	M	H
C2	O		
C3			Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

Coating systems for steel and zinc surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paint can be used for the top coat.

STEEL SURFACES:

Teknos Coating System Symbol	K69a	K69b	K69c	K69d	K69e	K69f
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5I.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15/C2/M S3.16/C3/L	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	-	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EPPUR120/2- FeSa 2½	EPPUR160/3- FeSa 2½	EPPUR200/3- FeSa 2½	EPPUR240/3- FeSa 2½	EPPUR280/4- FeSa 2½	EPPUR320/4- FeSa 2½
TEKNOPOX PRIMER 4 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 100 µm	1 x 80 µm	1 x 80 µm
TEKNOPOX PRIMER 4 Epoxy Primer	-	1 x 40 µm	1 x 80 µm	1 x 100 µm	2 x 80 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	100	130	160	200	230	260

ZINC SURFACES:

Teknos Coating System Symbol	K69g	K69h	K69i	K69j
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	-	-	A7.13/C4/H A7.13/C5-I/H A7.13/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	-	-	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EPPUR120/2- ZnSaS	EPPUR200/3- ZnSaS	EPPUR240/3- ZnSaS	EPPUR320/4- ZnSaS
TEKNOPOX PRIMER 4 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 100 µm	1 x 80 µm
TEKNOPOX PRIMER 4 Epoxy Primer	-	1 x 80 µm	1 x 100 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	200 µm	240 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	100	160	200	260

Example of the coating system marking: K69a - SFS-EN ISO 12944-5/A2.06(EPPUR120/2-FeSa 2½).

USAGE

Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
Steel surfaces	
K69a	Protection for steel surfaces in corrosivity categories C2 and C3.
K69b	Protection for steel surfaces in corrosivity categories C2 and C3.
K69c	Protection for steel surfaces in corrosivity category C3.
K69d	With TEKNODUR 0050 Top Coat in accordance with standard SFS 5873 system (S4.13) for protection of steel surfaces in corrosivity category C4
K69e	Protection for steel surfaces in corrosivity category C4.
K69f	Protection for steel surfaces in corrosivity categories C4 and C5.
Zinc surfaces	
K69g	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5. With TEKNODUR 0050 Top Coat also in accordance with standard SFS 5873 system (F30.04) in corrosivity categories C3 and C4. Used on aluminium surfaces the same standard's system correspond to F40.04 (EPPUR 120/2-AISaS).
K69h	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5. Also in accordance with standard SFS 5873 system (F40.06) for aluminium surfaces in corrosivity categories C5 (EPPUR 200/3-AISaS).
K69i	With TEKNODUR 0050 Top Coat in accordance with standard SFS 5873 system (F30.06) for hot-dip-galvanized surfaces in corrosivity category C5.
K69j	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain. It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AISaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.
The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOPOX PRIMER 4		TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet No.	1627		TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint Type	epoxy primer		polyurethane top coat	
Colours	grey, red, yellow		Teknomix tinting	
Finish	semi-matt		TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9521, TEKNOSOLV 6220	
Methods of application	airless spray		airless spray	
Airless spray nozzle	0.013 – 0.019"		TEKNODUR 0050: 0.011 - 0.013" TEKNODUR 0090: 0.011 - 0.013"	
Application conditions				
- min. temperature	°C	+10	+5	
- max. relative humidity	%	80	80	
Safety markings	See Safety Data Sheet		See Safety Data Sheet	
Volume solids	%	53 ±2	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)	
Total mass of solids		abt. 920	TEKNODUR 0050: abt. 870 TEKNODUR 0090: abt. 730	
Volatile organic compound (VOC)	g/l	abt. 440	TEKNODUR 0050: abt. 430 TEKNODUR 0090: abt. 460	
Recommended film thickness			TEKNODUR 0050:	
- wet	µm	113 - 225	71	
- dry	µm	60 - 120	40	
			TEKNODUR 0090:	
			80	
			40	
Theoretical spreading rate	m ² /l	8.8 - 4.4	TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5	
Drying time at +23°C / 50% RH		(dry film 60 µm)	((dry film 40 µm)	
- dust free, (ISO 9117-3:2010)		after 15 min.	after 1 h	
- touch dry, (DIN 53150:1995)		after 1 h 15 min.	after 6 h	
Overcoatable, 50% RH		by itself	TEKNODUR 0050: by itself	
		min.	max.*	
+5°C		-	-	after 20 h
+10°C		after 6 h	after 6 months	18 months or Extended**
+23°C		after 2 h	after 6 months	18 months or Extended**
		with TEKNODUR 0050 or 0090		TEKNODUR 0090: by itself
		min.	max.*	
+5°C		-	-	after 20 h
+10°C		after 12 h	after 7 d	-
+23°C		after 2 h	after 3 d	-

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K76

3 5.3.2013

	L	M	H
C2	O	O	O
C3	O	O	
C4			
C5	O		

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. On steel surfaces is used as primer TEKNOZINC 80 SE Zinc Rich Epoxy Paint that protects the steel surface like zinc cathodically. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paint can be used for the top coat.

Teknos Coating System Symbol	K76a	K76b	K76c	K76d	K76e	K76f
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.14/C4/M	A4.15/C4/H	-	A5I.05/C5-I/H A5M.06/C5-M/H
EN ISO 12944-5 (1998) symbol/ corrosivity category / durability range	S3.21/C3/H S4.19/C4/L S6.05/C5-I/M	S3.22/C3/H S4.20/C4/M	S3.22/C3/H S4.20/C4/M	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EP PUR160/3- FeSa 2½	EPZn(R)EP PUR200/4- FeSa 2½	EPZn(R)EP PUR200/3- FeSa 2½	EPZn(R)EP PUR240/4- FeSa 2½	EPZn(R)EP PUR280/4- FeSa 2½	EPZn(R)EP PUR320/5- FeSa 2½
TEKNOZINC 80 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPOX PRIMER 4 Epoxy Primer	1 x 80 µm	2 x 60 µm	1 x 80 µm	2 x 80 µm	2 x 100 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 80 µm	1 x 40 µm	1 x 40 µm	2 x 40 µm
Total film thickness	160 µm	200 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	130	170	160	200	230	260

Example of the coating system's marking: K76a - EN ISO 12944-5/ A3.11(EPZn_(R)) EPPUR160/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K76a	Protection of steel surfaces in corrosivity categories C3 and C4.
K76b	Protection for steel surfaces in corrosivity categories C3 and C4.
K76c	Protection for steel surfaces in corrosivity category C4. With TEKNODUR 0050 Top Coat also in accordance with standard SFS 5873 system (S4.20) corrosion category C4.
K76d	Protection for steel surfaces in corrosivity category C4. With TEKNODUR 0050 Top Coat also in accordance with standard SFS 5873 system (S5.09) corrosion category C5.
K76e	Protection of steel surfaces outside exposed to very severe atmospheric corrosion in corrosivity categories C4 and C5.
K76f	Protection of steel surfaces outside exposed to very severe atmospheric corrosion in corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application Stir the components thoroughly before use. Mix the base and hardener carefully with each other in the proportions given on the paint label. Mix only amount sufficient to be used within the pot life of the mixture.
Apply preferably by airless spray, since only this method provides the recommended film thickness for the primer and intermediate coat in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 80 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOZINC 80 SE	TEKNOPOX PRIMER 4	TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet No.		940	1627	TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint Type		zinc rich epoxy paint	epoxy primer	polyurethane top coat	
Colours		bluish grey	red, yellow, grey	Teknomix tinting	
Finish		matt	semi-matt	TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9521, TEKNOSOLV 6220	
Methods of application		airless spray	airless spray	airless spray	
Airless spray nozzle		0.018 - 0.021" (turn-nozzle)	0.013 - 0.019"	TEKNODUR 0050: 0.011-0.013" TEKNODUR 0090: 0.011-0.013"	
Application conditions					
- min. temperature	°C	+10	+10	+5	
- max. relative humidity	%	80	80	80	
Safety markings		See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet	
Volume solids	%	50 ±2	53 ±2	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)	
Total mass of solids		abt. 1900	abt. 920	TEKNODUR 0050: abt. 870 TEKNODUR 0090: abt. 730	
Volatile organic compound (VOC)	g/l	abt. 450	abt. 440	TEKNODUR 0050: abt. 430 TEKNODUR 0090: abt. 460	
Recommended film thickness				TEKNODUR 0050: 71 - 142 40 - 80 TEKNODUR 0090: 80 40	
- wet	µm	80	113 - 225		
- dry	µm	40	60 - 120		
Theoretical spreading rate	m ² /l	12.5	8.8 - 4.4	TEKNODUR 0050: 14.0 - 7.0 TEKNODUR 0090: 12.5	
Drying time at +23°C / 50% RH - dust free, (ISO 9117-3:2010) - touch dry, (DIN 53150:1995) Overcoatable, 50 % RH		(dry film 40 µm) after 5 min after 30 min by itself or with TEKNOPLAST PRIMER 3:	(dry film 60 µm) after 15 min. after 1 h 15 min. by itself	(dry film 40 µm) after 1 h after 6 h by itself	
		min.	max.*	min.	max.*
+5°C		-	-	after 20 h	-
+10°C		after 6 h	after 3 months	after 6 h	after 6 months
+23°C		after 1 h	after 3 months	after 2 h	after 6 months
				with TEKNODUR 0050 or 0090	-
				min.	min.
+10°C				after 12 h	after 7 d
+23°C				after 2 h	after 3 d

* Maximum overcoating interval without roughening.

NORSOK M-501 -approved INERTA MASTIC MIOX -SYSTEM

3 9.2.2012

K77

	L	M	H
C2	O	O	O
C3	O	O	O
C4	O	O	O
C5	O	O	

Coating systems for coating of steel surfaces that are exposed to so-called "offshore" environment. The coating systems correspond with coating system 1 in standard NORSOK M-501 rev. 5:2004, Annex A. The coating systems are tested and approved according to ISO 20340 test requirements. The systems consist of a chemically curing, solvent-borne two-pack epoxy primer and intermediate coats and solvent-borne NISO-acrylic topcoat or water-borne polyurethane topcoat. TEKNOZINC 3485 SE zinc rich epoxy primer protects steel cathodically like zinc.

Teknos coating system symbol	K77a	K77b
SFS-EN ISO 12944-5 (2007) symbol/corrosivity category/durability range	A5I.06/C5-I/H	A5M.06/C5-M/H
The coating system structure:	EPZn(R)EPAY320/4- FeSa 2½	EPZn(R)EPPUR320/ 4- FeSa 2½
TEKNOZINC 3485 SE Zinc Rich Epoxy Paint	1 x 60 µm	1 x 60 µm
INERTA MASTIC MIOX epoxy coating	2 x 110 µm	2 x 110 µm
TEKNOCRYL 2K 2540	1 x 40 µm	
TEKNODUR AQUA 3390-09		1 x 40 µm
Total film thickness	320 µm	320 µm
Coating system VOC, g/m ²	137	104

Example of the coating system marking: SFS-EN ISO 12944-5/ A5M.06(EPZn (R) EPPUR320/4-FeSa 2½).

Usage Protection for steel surfaces exposed to very stressful climate, when good colour and gloss retention is required.

Teknos symbol	Typical use
K77a and b	Protection of steel surfaces outdoor under very stressful circumstances, corrosivity category C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards ISO 12944-4 and ISO 8501-2.

Application Stir the components of the paints thoroughly before use. Mix base and hardener carefully with each other in the proportions given on the paint label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thicknesses for primers and intermediate paints in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Touch-up: Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast cleaning. Extend the preparation over the edges of damages into the intact coating. Touch up the prepared patches with the paints of the system to the original film thickness.
NOTE! TEKNOZINC 3485 SE is to be applied only on bare steel, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. In this case, the painting has lost its protective power. Blast clean the whole surface to preparation grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC 3485 SE	INERTA MASTIC MIOX	TEKNOCRYL 2K 2540	TEKNODUR AQUA 3390-09
Data sheet	1587	549	1501	1005
Paint type	SE Zinc Rich Epoxy Paint	epoxy coating	NISO-acrylic topcoat	Polyurethane topcoat
Hardener	TEKNOZINC 50 SE / 80 SE / 90 SE HARDENER	INERTA MASTIC HARDENER	TEKNOCRYL 2K HARDENER 7326	TEKNODUR AQUA HARDENER 7311
Mixing ratio	5:1	2:1	2:1	5:1
Colours	bluish grey	grey, red (MIOX-pigmented)	by agreement	Teknomix-tintable
Gloss	matt	semi matt	semigloss	gloss
Thinner, clean up of equipment	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9521, TEKNOSOLV 6220	water, TEKNOSOLV 1936
Methods of application	airless spray	brush, roller or airless spray	airless spray, brush or conventional spray	airless spray or conventional spray
Airless spray nozzle	0,015 - 0,021" (turn-nozzle)	0,015 - 0,021"	0,011 - 0,013"	0,011 - 0,013"
Application conditions - min. temperature - max. relative humidity	+10 80	+10 80	+5 80	+10 70
Safety markings	See Material Safety Data Sheet	See Material Safety Data Sheet	See Material Safety Data Sheet	See Material Safety Data Sheet
Volume solids	58 ±2	80 ±2	47 ±2	42 ±2
Total mass of solids	2900	abt. 1300	abt. 600	abt. 560
Volatile organic compound (VOC)	abt. 360	abt. 210	abt. 490	abt. 90
Recommended film thickness - wet - dry	103 60	138 110	85 40	95 40
Theoretical spreading rate	9,7	7,2	11,8	10,5
Drying time, +23°C / 50 % RH - dust free, (ISO 9117-3:2010) - touch dry, (DIN 53150:1995) Overcoatable, 50% RH	(dry film 40 µm) after 15 min after 30 min by itself, with INERTA MASTIC	(dry film 120 µm) after 4 h after 6 h by itself, with TEKNOCRYL 2K 2540 or TEKNODUR AQUA 3390	(dry film 40 µm) after 30 min after 3 h by itself:	(dry film 40 µm) after 2,5 h after 6,5 h by itself
	min. max.*	min. max.*	min. max.*	min. max.*
+5°C	-	-	after 20 h	-
+10°C	after 6 h	after 3 month	after 16 h	after 1 d
+23°C	after 1 h	after 3 month	after 12 h	after 6 h

* Maximum overcoating interval without roughening.

NORSOK M-501 –approved TEKNODUR COMBI 3560 POLYURETHANE SYSTEM

K78

	L	M	H
C2	o	o	o
C3	o	o	o
C4	o	o	o
C5	o	o	

4 6.7.2017

Coating system for steel surfaces that are exposed to so-called "offshore" environment. The coating system corresponds with coating system 1 in standard NORSOK M-501 rev. 5:2004, Annex A. The coating system is tested and approved according to ISO 20340 test requirements. The system consists of chemically curing, solvent-borne two-pack epoxy and polyurethane paints.

Teknos coating system symbol	K78
EN ISO 12944-5 (2007) symbol/corrosivity category/durability range	-
The coating system structure:	EPZn(R)PUR 200/2-FeSa 2½
TEKNOZINC 90 SE Zinc Rich Epoxy Paint	1 x 60 µm
TEKNODUR COMBI 3560-75 Polyurethane Paint	2 x 110 µm
Total film thickness	280 µm
Coating system VOC, g/m ²	53

Example of the coating system marking: K78 - EPZn(R)PUR 280/3-FeSa 2½.

Usage Protection for steel surfaces exposed to atmospheric corrosion, when good colour and gloss retention is required of the top coat.

Teknos symbol	Typical use
K78	Protection of steel surfaces outdoor under very stressful circumstances, corrosivity category C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

PTO

Application Stir the components of the paints thoroughly before use. Mix base and hardener carefully with each other in the proportions given on the paint label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thicknesses for primers and intermediate paints in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast cleaning. Extend the preparation over the edges of damages into the intact coating. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 90 SE is to be applied only on bare steel, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast clean the whole surface to preparation grade Sa 2½ and paint from priming to top coat as for new work.

Technical data

Paint		TEKNOZINC 90 SE	TEKNODUR COMBI 3560-75		
Data sheet	No.	15	1360		
Paint type		epoxy zinc rich paint	polyurethane paint		
Hardener		TEKNOZINC 50 SE / 80 SE / 90 SE HARDENER	TEKNODUR HARDENER 7227		
Mixing ratio		5:1	3:1		
Colours		bluish grey	by agreement		
Gloss		matt	semigloss		
Thinner, clean up of equipment		TEKNOSOLV 9506	TEKNOSOLV 1129, TEKNOSOLV 9526, TEKNOSOLV 9533		
Methods of application		airless spray	airless spray or brush		
Airless spray nozzle		0.018–0.021" (turn-nozzle)	0.013–0.017"		
Application conditions					
- min. temperature	°C	+10	+5		
- max. relative humidity	%	80	80		
Safety markings		See Material Safety Data Sheet	See Material Safety Data Sheet		
Volume solids	%	53 ±2 (ISO 3233:1988)	74 ±2		
Total mass of solids	g/l	abt. 2100	abt. 1250		
Volatile organic compound (VOC)	g/l	abt. 450	abt. 230		
Recommended film thickness					
- wet	µm	75	149		
- dry	µm	40	110		
Theoretical spreading rate	m ² /l	13.2	6.2		
Drying time, +23°C / 50 % RH		(dry film 40 µm)	(dry film 110 µm)		
- dust free, (ISO 9117-3:2010)		after 5 min	after 40 min		
- touch dry, (DIN 53150:1995)		after 30 min	after 50 min		
Overcoatable, 50% RH		with TEKNODUR COMBI 3560:	by itself:		
		min.	max.*	min.	max
+5°C		-	-	after 8 h	after 24 h
+10°C		after 6 h	after 12 months	-	-
+23°C		after 1 h	after 12 months	after 1 h	after 8 h

* Maximum overcoating interval without roughening.

NORSOK M-501 -approved TEKNOZINC SS -SYSTEM

4 30.3.2017

K79

	L	M	H
C2	O	O	O
C3	O	O	O
C4	O	O	O
C5	O	O	

A coating system for coating of steel surfaces that are exposed to so-called "offshore" environment. The coating system corresponds with coating system 1 in standard NORSOK M-501 rev. 5:2004, Annex A. The coating system is tested and approved according to ISO 20340 test requirements. The system consists of a chemically curing, solvent-borne two-pack epoxy intermediate paint and water-borne acrylic topcoat. The primer is TEKNOZINC SS zinc rich silicate paint that protects the steel cathodically like zinc.

Teknos coating system symbol	K79
EN ISO 12944-5 (2007) symbol/corrosivity category/durability range	-
The coating system structure:	ESIZn(R)EPAY-280/4-FeSa 2½
TEKNOZINC SS Zinc Rich Silicate Paint	1 x 60 µm
TEKNOPLAST PRIMER 7	1 x 40 µm
TEKNOPLAST PRIMER 7	1 x 140 µm
TEKNOCRYL AQUA COMBI 2780-91	1 x 40 µm
Total film thickness	280 µm
Coating system VOC, g/m ²	140

Example of the coating system marking: ESIZn(R)EPAY280/4-FeSa 2½).

Usage Protection for steel surfaces exposed to very stressful climate, when good colour and gloss retention is required.

Teknos symbol	Typical use
K79	Protection of steel surfaces outdoor under very stressful circumstances, corrosivity category C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards ISO 12944-4 and ISO 8501-2.

Application Stir the components of the paints thoroughly before use. Mix base and hardener carefully with each other in the proportions given on the paint label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thicknesses for primers and intermediate paints in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Touch-up: Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast cleaning. Extend the preparation over the edges of damages into the intact coating. Touch up the prepared patches with the paints of the system to the original film thickness.
NOTE! TEKNOZINC SS is to be applied only on bare steel, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. In this case, the painting has lost its protective power. Blast clean the whole surface to preparation grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	TEKNOZINC SS		TEKNOPLAST PRIMER 7		TEKNOCRYL AQUA COMBI 2780-91			
Data sheet No.	81		956		1452			
Paint type	zinc rich silicate paint		epoxy paint		acrylic top coat			
Comp. B	TEKNOZINC SS SILICATE PART		TEKNOPLAST HARDENER		-			
Mixing ratio	7:3		4:1		-			
Colours	greenish grey		grey, red, white (Available as MIOX-pigmented also.)		by agreement			
Gloss	matt		semi matt		semi matt			
Thinner, clean up of equipment	TEKNOSOLV 9506		TEKNOSOLV 9506		water			
Methods of application	brush, airless spray or conventional spray		airless spray		airless spray or brush			
Airless spray nozzle	0,018 - 0,021" (turn-nozzle)		0,013 - 0,019"		0,013 - 0,018"			
Application conditions	°C		°C		°C			
- min. temperature	+5		+10		+15			
- max. relative humidity	90		80		60			
Safety markings	See Safety Data Sheet		See Safety Data Sheet		See Safety Data Sheet			
Volume solids	%		%		%			
	52 ±2		70 ±2		42 ±2			
Total mass of solids	g/l		g/l		g/l			
	abt. 1700		abt. 1200		abt. 620			
Volatile organic compound (VOC)	g/l		g/l		g/l			
	abt. 510		abt. 300		abt. 41			
Recommended film thickness	µm		µm		µm			
- wet	115		57 - 200		95			
- dry	60		40 - 140		40			
Theoretical spreading rate	m ² /l		m ² /l		m ² /l			
	8,7		7,2		10,5			
Drying time, +23°C / 50 % RH	(dry film 40 µm)		(dry film 80 µm)		(dry film 40 µm)			
- dust free, (ISO 9117-3:2010)	after 15 min		after 1 h		after 30 min			
- touch dry, (DIN 53150:1995)	after 30 min		after 4 h		after 45 min			
Overcoatable, 50% RH	by itself or TEKNOPLAST PRIMER 7		by itself		by itself			
	+5°C	min.	max.*	min.	max.*	min.	max.*	
		after 3 d (RH 90 %)	-	-	-	-	-	
	+10°C	after 14 d (RH 50 %)	-	-	after 8 h	12 months or Extended**	after 6 h (+15°C)	-
		-	-	-	-	-	-	-
+23°C	after 1 d (RH over 80%)	-	-	after 4 h	12 months or Extended**	after 3 h	-	
	after 14 d (RH 50 %)	-	-	-	-	-	-	
+10°C +23°C			by TEKNOCRYL AQUA COMBI 2780-91					
			min.	max.*				
			after 8 h	after 7 d				
				after 4 h	after 3 d			

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR 0150 / 0190 POLYURETHANE SYSTEMS

K80

4 15.5.2017

	L	M	H
C2	O		
C3			Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

Coating systems for steel and zinc surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. Semigloss TEKNODUR 0150 or gloss TEKNODUR 0190 weather-resistant polyurethane paint can be used for the top coat.

STEEL SURFACES:

Teknos Coating System Symbol	K80a	K80b	K80c	K80d	K80e	K80f
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5.02/C5-I/H A5M.02/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15/C2/M S3.16/C3/L	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	-	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EPPUR120/2- FeSa 2½	EPPUR160/3- FeSa 2½	EPPUR200/3- FeSa 2½	EPPUR240/3- FeSa 2½	EPPUR280/4- FeSa 2½	EPPUR320/4- FeSa 2½
TEKNOPOX PRIMER 4 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 100 µm	1 x 80 µm	1 x 80 µm
TEKNOPOX PRIMER 4 Epoxy Primer	-	1 x 40 µm	1 x 80 µm	1 x 100 µm	2 x 80 µm	2 x 100 µm
TEKNODUR 0150 or TEKNODUR 0190 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0150 Top Coat	100	130	160	200	230	260

ZINC SURFACES:

Teknos Coating System Symbol	K80g	K80h	K80i	K80j
EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	-	-	A7.13/C4/H A7.13/C5-I/H A7.13/C5-M/H
EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	-	-	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EPPUR120/2- ZnSaS	EPPUR200/3- ZnSaS	EPPUR240/3- ZnSaS	EPPUR320/4- ZnSaS
TEKNOPOX PRIMER 4 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 100 µm	1 x 80 µm
TEKNOPOX PRIMER 4 Epoxy Primer	-	1 x 80 µm	1 x 100 µm	2 x 100 µm
TEKNODUR 0150 or TEKNODUR 0190 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	200 µm	240 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0150 Top Coat	100	160	200	260

Example of the coating system marking: K80a - SFS-EN ISO 12944-5/A2.06(EPPUR120/2-FeSa 2½).

USAGE

Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
Steel surfaces	
K80a	Protection for steel surfaces in corrosivity categories C2 and C3.
K80b	Protection for steel surfaces in corrosivity categories C2 and C3.
K80c	Protection for steel surfaces in corrosivity category C3.
K80d	With TEKNODUR 0150 Top Coat in accordance with standard SFS 5873 system (S4.13) for protection of steel surfaces in corrosivity category C4
K80e	Protection for steel surfaces in corrosivity category C4.
K80f	Protection for steel surfaces in corrosivity categories C4 and C5.
Zinc surfaces	
K80g	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5. With TEKNODUR 0150 Top Coat also in accordance with standard SFS 5873 system (F30.04) in corrosivity categories C3 and C4. Used on aluminium surfaces the same standard's system correspond to F40.04 (EPPUR 120/2-AISaS).
K80h	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5. Also in accordance with standard SFS 5873 system (F40.06) for aluminium surfaces in corrosivity categories C5 (EPPUR 200/3-AISaS).
K80i	With TEKNODUR 0150 Top Coat in accordance with standard SFS 5873 system (F30.06) for hot-dip-galvanized surfaces in corrosivity category C5.
K80j	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain. It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AISaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOPOX PRIMER 4	TEKNODUR 0150 or TEKNODUR 0190
Data Sheet No.		1627	TEKNODUR 0150: 487 TEKNODUR 0190: 111
Paint Type		epoxy primer	polyurethane top coat
Colours		grey, red, yellow	Teknomix tinting
Finish		semi-matt	TEKNODUR 0150: semigloss TEKNODUR 0190: gloss
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9526, TEKNOSOLV 6220
Methods of application		airless spray	airless spray
Airless spray nozzle		0.013 – 0.019"	TEKNODUR 0150: 0.011 - 0.013" TEKNODUR 0190: 0.011 - 0.013"
Application conditions			
- min. temperature	°C	+10	+5
- max. relative humidity	%	80	80
Safety markings		See Safety Data Sheet	See Safety Data Sheet
Volume solids	%	53 ±2	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)
Total mass of solids		abt. 920	TEKNODUR 0150: abt. 840 TEKNODUR 0190: abt. 860
Volatile organic compound (VOC)	g/l	abt. 440	TEKNODUR 0150: abt. 440 TEKNODUR 0190: abt. 470
Recommended film thickness			TEKNODUR 0150:
- wet	µm	113 - 225	80
- dry	µm	60 - 120	40
			TEKNODUR 0190: 80 40
Theoretical spreading rate	m ² /l	8.8 - 4.4	TEKNODUR 0150: 12.5 TEKNODUR 0190: 12.5
Drying time at +23°C / 50% RH		(dry film 60 µm)	((dry film 40 µm)
- dust free, (ISO 9117-3:2010)		after 15 min.	after 1 h
- touch dry, (DIN 53150:1995)		after 1 h 15 min.	after 6 h
Overcoatable, 50% RH		by itself:	by itself:
		min.	max.*
		min.	max.*
+5°C		-	after 20 h
+10°C		after 6 h	after 6 months
+23°C		after 2 h	after 6 months
		after 12 h	after 12 h
		with TEKNODUR 0150 or 0190:	
		min.	max.*
		min.	max.*
+10°C		after 12 h	after 7 d
+23°C		after 2 h	after 3 d

* Maximum overcoating interval without roughening.

INERTA 270 EPOXY SYSTEM

K81

5 15.5.2017

Coating system for anti-corrosive painting on steel surfaces. The system consists of the chemically curing two-pack INERTA 270 Epoxy Paint with low solvent content.

Teknos Coating System Symbol	K81
EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	-
The coating system structure:	EP300/2- FeSa 2½
INERTA 270 Epoxy Paint	2 x 150 µm
Total film thickness	300 µm
Coating system VOC, g/m ²	80

Example of the coating system marking: EP300/2-FeSa 2½.

Usage Inside of steel basins and tanks. Withstands aqueous solutions of most chemicals, heating oil, diesel oil, unleaded petrol, jet fuel as well as several solvents.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). The profile of the blast-cleaned surface must be at least rough. See standard ISO 8503-2.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

All Prefabrication primer coats must be completely removed regardless of the binder type. In practice this means that when the surface is viewed vertically from a distance of 1 m and in normal lighting conditions the surface is of an evenly grey colour, i.e. the preparation grade is Sa 2½ (ISO 8501-1).

PTO

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply the paints preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Small damages can be prepared by discing. Feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness. If a uniform appearance is desired, the whole surface should be cleaned, roughened by sweep blast-cleaning or grinding and then overcoated with the top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	INERTA 270	
Data Sheet	No.	1706
Paint Type	Epoxy paint with low solvent content	
Colours	white, red, yellow and light grey	
Finish	gloss	
Thinner	TEKNOSOLV 9506	
Methods of application	airless spray, brush	
Airless spray nozzle	0.018 – 0.026" (turn-nozzle)	
Application conditions		
- min. temperature	°C	air and surface: +5, paint: +15
- max. relative humidity	%	85
Safety Markings	See Material Safety Data Sheet	
Volume solids	% by volume	75±2
Total mass of solids	g/l	abt. 1300
Volatile organic compound (VOC)	g/l	200
Recommended film thickness		
- wet	µm	200
- dry	µm	150
Theoretical spreading rate	m²/l	5.0
Drying time, +23°C / 50 % RH		
- dust free (ISO 9117-3:2010)	after 6 h	
- touch dry (DIN 53150:1995)	after 7 h	
- fully cured	after 7 d	
Overcoatable, 50 % RH	by itself:	
	min.	max*.
.+10°C	after 24 h	after 4 d
.+23°C	after 12 h	after 2 d

* Maximum overcoating interval without roughening.

TEKNOPLAST HS 150 -EPOXY SYSTEM

5 15.5.2017

K82

	L	M	H
C2	O		
C3			Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

Coating system for steel and zinc surfaces that will be exposed to atmospheric corrosion. The system consists of chemically curing, solvent-borne two pack epoxy reactive paints.

STEEL SURFACES:

Teknos Coating System Symbol	K82a	K82b	K82c
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.07/C2/H A3.08/C3/M	A4.08/C4/M	A5I.02/C5-I/H A5M.02/C5-M/H
SFS-EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.16/C2/H S3.17/C3/M	-	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EP160/2- FeSa 2½	EP240/3- FeSa 2½	EP320/4- FeSa 2½
TEKNOPOX PRIMER 4 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm
TEKNOPOX PRIMER 4 Epoxy Primer	-	1 x 80 µm	2 x 80 µm
TEKNOPLAST HS 150 Epoxy Paint	1 x 80 µm	1 x 80 µm	1 x 80 µm
Total film thickness	160 µm	240 µm	320 µm
Coating system VOC, g/m ²	100	170	230

ZINC SURFACES:

Teknos Coating System Symbol	K82d	K82e
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.11/C3/H A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.13/C4/H A7.13/C5-I/H A7.13/C5-M/H
SFS-EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	-	S9.13/C4/H S9.13/C5-I/M S9.13/C5-M/H
The coating system structure:	EP160/2- ZnSaS	EP320/4- ZnSaS
TEKNOPOX PRIMER 4 Epoxy Primer	1 x 80 µm	1 x 80 µm
TEKNOPOX PRIMER 4 Epoxy Primer	-	2 x 80 µm
TEKNOPLAST HS 150 Epoxy Paint	1 x 80 µm	1 x 80 µm
Total film thickness	160 µm	320 µm
Coating system VOC, g/m ²	100	230

Example of the coating system marking: K82a - SFS-EN ISO 12944-5/A2.06(EP160/2-FeSa 2½).

USAGE

Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
Steel surfaces:	
K82a	Protection for steel surfaces in corrosivity categories C2 and C3.
K82b	Protection for steel surfaces in corrosivity category C4.
K82c	Protection for steel surfaces in corrosivity categories C4 and C5.
Zinc surfaces:	
K82d	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5.
K82e	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOPOX PRIMER 4	TEKNOPLAST HS 150	
Data Sheet	No.	1627	113	
Paint Type		epoxy primer	epoxy paint	
Colours		grey, red, yellow	Teknomix tinting	
Finish		semi-matt	semigloss	
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9506	
Methods of application		airless spray	brush, airless spray	
Airless spray nozzle		0.013 – 0.019"	0.013 – 0.021"	
Application conditions				
- min. temperature	°C	+10	+10	
- max. relative humidity	%	80	80	
Safety markings		See Safety Data Sheet	See Safety Data Sheet	
Volume solids	%	53 ±2	70 ±2 (ISO 3233:1988)	
Total mass of solids	g/l	abt. 920	abt. 1050	
Volatile organic compound (VOC)	g/l	abt. 440	abt. 300	
Recommended film thickness				
- wet	µm	150	114	
- dry	µm	80	80	
Theoretical spreading rate	m ² /l	6.6	8.8	
Drying time at +23°C / 50% RH		(dry film 60 µm)	(dry film 80 µm)	
- dust free, (ISO 9117-3:2010)		after 15 min.	after 30 min.	
- touch dry, (DIN 53150:1995)		after 1 h 15 min.	after 5 h	
- fully cured		-	after 7 d	
Overcoatable, 50% RH		by itself:	by itself:	
		min.	max.*	
+10°C		after 6 h	after 6 months	after 16 h
+23°C		after 2 h	after 6 months	after 5 h
		with TEKNOPLAST HS 150		
		min.	max.*	
+10°C		after 6 h	after 18 months	
+23°C		after 2 h	after 18 months	

* Maximum overcoating interval without roughening.

INERTA 280 EPOXY SYSTEMS

K83

4 15.5.2017

Coating system for anti-corrosive painting on steel surfaces. The systems consist of a chemically curing two-pack INERTA 280 Epoxy Phenol Novolac Coating, which is almost free of solvent.

Teknos Coating System Symbol	K83a	K83b	K83c	K83d
SFS-EN ISO 12944-5 (2007) symbol/ corrosivity category/ durability range	A6.09/Im 1-3/M	-	A6.10/Im 1-3/H	-
SFS-EN ISO 12944-5 (1998) symbol / corrosivity category /durability range	-	-	-	-
The coating system structure:	EP400/1- FeSa 2½	EP500/2- FeSa 2½	EP600/1- FeSa 2½	EP500/1- FeSa 2½
INERTA 280 Epoxy Phenol Novolac Coating	1 x 400 µm	2 x 250 µm	1 x 600 µm	1 x 500 µm
Total film thickness	400 µm	500 µm	600 µm	500 µm
Coating system VOC, g/m ²	17	21	25	21

Example of the coating system marking: K83a - SFS-EN ISO 12944-5/ A6.09 (EP400/1-FeSa 2½).

Usage

Inside of steel basins and tanks. INERTA 280 withstands well chemicals like saline solutions, alkaline solutions and mild acids. The resistance to aliphatic and aromatic hydrocarbons like solvents, oil and petrol is good. Withstands also water-ethanol blends. See separate Chemical Resistance List.

Teknos symbol	Typical use
K83a	Coating for the insides of tanks for unleaded petrol. Objects immersed into soil and water. (Corrosivity categories Im 1-3/M)
K83b	Inside of steel basins and tanks. System in accordance with standard SFS 5873 for steel surfaces immersed into fuel or oil products (system F22.05) as well as into soil and water (system F22.01).
K83c	Inside of steel basins and tanks. Objects immersed into soil and water. (Corrosivity categories Im 1-3/H)
K83d	Inside of steel basins and tanks. System in accordance with standard SFS 5873 for objects immersed into soil and water (F22.02).

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). The profile of the blast-cleaned surface must be at least rough. See standard ISO 8503-2.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

All Prefabrication primer coats must be completely removed regardless of the binder type. In practice this means that when the surface is viewed vertically from a distance of 1 m and in normal lighting conditions the surface is of an evenly grey colour, i.e. the preparation grade is Sa 2½ (ISO 8501-1).

Application

INERTA 280 is applied with a hot twin-feed spray, e.g. Graco Hydra-Cat with turn-nozzle 0.018 - 0.026".

The components must be kept at a temperature of +20 - +25°C before use so that they are fluid enough for the feed pumps. The ratio of the dosage pump must be 2: 1. The heating of the components shall be adjusted so that the temperature in the gun is +30 - +40°C. The pot life of the mixture is then 10 - 20 min. If required, also the hoses must be heated. Check the film thickness using a wet film gauge. The feed pump pressure and the consumption of the components are followed to ensure correct mixing ratio.

Special directions given by the manufacturer of the twin-feed spray are to be followed during application. The painting equipment must be cleaned immediately after use. The hose and gun must also be rinsed during application after every 20 - 30 litre batch.

The second coat is applied immediately after the first one is hard enough to allow stepping on. The surface must still be sticky. If the interval between the coats is 1 - 2 days, good adhesion can be ensured by wiping the surface with thinner (TEKNOSOLV 6560 or 9514), which softens the paint film and makes it sticky. Whenever the maximal overcoating interval is exceeded, the adhesion can be secured by rubbing down the surface.

The technical data of the paint are given in the table below and in the data sheet of the product.

Maintenance

Touch-up: Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up.

Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Small damages can be prepared by discing. Feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

If a uniform appearance is desired, the whole surface should be cleaned, roughened by sweep blast-cleaning or grinding and then overcoated with the top coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint	INERTA 280	
Data Sheet	No.	1645
Paint type	nearly solvent-free epoxy paint	
Colours	red, green and white	
Finish	gloss	
Thinner	TEKNOSOLV 6560 or TEKNOSOLV 9514	
Methods of application	twin-feed spray, e.g. Graco Hydra-Cat	
Airless spray nozzle	0.018 – 0.026" (turn-nozzle)	
Application conditions		
- min. temperature	°C	+10
- max. relative humidity	%	80
Safety markings	See Material Safety Data Sheet	
Volume solids	volume-%	96 ±2
Total mass of solids	g/l	abt. 1500
Volatile organic compound (VOC)	g/l	abt. 50
Recommended film thickness		
- wet	µm	260 - 625
- dry	µm	250 - 600
Theoretical spreading rate	m ² /l	3.8 – 1.6
Drying time, +23°C / 50 % RH		
- dust free, (ISO 9117-3:2010)		after 3 h
- touch dry, (DIN 53150:1995)		after 4 h
- fully cured		after 7 d
Overcoatable, 50 % RH	by itself:	
	min.	max*.
.+10°C	after 6 h	after 2 d
.+23°C	after 3 h	after 24 h

* Maximum overcoating interval without roughening.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K86

	L	M	H
C2	O	O	Zn
C3	O		
C4	O	Zn	Zn
C5	Zn	Zn	Zn

3 30.3.2017

Coating systems for steel and zinc surfaces that will be exposed to atmospheric corrosion. The systems consist of high solid content TEKNOPLAST PRIMER 7 Epoxy Primer and either semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 Polyurethane paint.

STEEL SURFACES:

Teknos Coating System Symbol	K86a	K86b	K86c	K86d	K86e	K86f
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5I.02/C5-I/H A5M.02/C5-M/H
SFS-EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S2.15	S2.16/C2/H S3.17/C3/M	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S3.19/C3/H S4.13/C4/M	S4.14/C4/H S6.03/C5-I/H	S4.15/C4/H S6.04/C5-I/H S7.04/C5-M/H
The coating system structure:	EPPUR160/2- FeSa 2½	EPPUR160/2- FeSa 2½	EPPUR200/3 FeSa 2½	EPPUR240/3 FeSa 2½	EPPUR280/3- FeSa 2½	EPPUR320/4- FeSa 2½
TEKNOPLAST PRIMER 7 Epoxy Primer	1 x 80 µm	1 x 120 µm	1 x 80 µm	1 x 80 µm	1 x 120 µm	1 x 80 µm
TEKNOPLAST PRIMER 7 Epoxy Primer	-	-	1 x 80 µm	1 x 120 µm	1 x 120 µm	2 x 100 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050	65	82	99	116	133	151

ZINC SURFACES:

Teknos Coating System Symbol	K86g	K86h	K86i
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.12/C4/H A7.12/C5-I/M A7.12/C5-M/M
SFS-EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S9.10/C3/H S9.10/C4/M S9.10/C5-I/L S9.10/C5-M/L	S9.11/C4/H S9.11/C5-I/L S9.11/C5-M/M	S9.12/C4/H S9.12/C5-I/M S9.12/C5-M/H
The coating system structure:	EPPUR120/2- ZnSaS	EPPUR160/2- ZnSaS	EPPUR240/3- ZnSaS
TEKNOPLAST PRIMER 7 Epoxy Primer	1 x 80 µm	1 x 120 µm	1 x 80 µm
TEKNOPLAST PRIMER 7 Epoxy Primer li	-	-	1 x 120 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	240 µm
Coating system VOC, g/m ² with TEKNODUR 0050	65	82	116

Example of the coating system marking: K86b - SFS-EN ISO 12944-5/ A2.07 (EPPUR160/2-FeSa 2½)

USAGE

Protection for steel and zinc surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
STEEL SURFACES:	
K86a	Protection for steel structures in corrosivity categories C2 and C3.
K86b	Protection for steel structures in corrosivity categories C2 and C3.
K86c	Protection for steel structures in corrosivity category C3.
K86d	Protection for steel structures in corrosivity category C4.
K86e	Protection for steel structures in corrosivity categories C3 and C4.
K86f	Protection for steel structures in corrosivity categories C4 and C5.
ZINC SURFACES:	
K86g	Hot-dip-galvanized surfaces outdoors in corrosivity categories C3, C4 and C5.
K86h	Hot-dip-galvanized surfaces outdoors in corrosivity categories C4 and C5.
K86i	Hot-dip-galvanized surfaces outdoors in corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

**Prefabrication
Primer**

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Application

Stir the components thoroughly before use. Mix the Base and Hardener carefully with each other in the proportions given on the label. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply preferably by airless spray, since only this method provides the recommended film thickness in a single operation. The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paint is given in the table below and in the data sheet of the products.

Maintenance Touch-up: Surfaces with rust grade Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the damaged edges into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paint of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, since the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOPLAST PRIMER 7	TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet	No.	956	TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint type		epoxy primer	polyurethane paint	
Colours		red, grey and white	Teknomix tinting	
Finish		semi-matt	TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9521 or TEKNOSOLV 6220	
Methods of application		airless spray	airless spray	
Airless spray nozzle		0.013 – 0.019"	TEKNODUR 0050: 0.011 – 0.013" TEKNODUR 0090: 0.011 – 0.013"	
Application conditions				
- min. temperature	°C	+10	+5	
- max. relative humidity	%	80	80	
Safety markings		See Safety Data Sheet	See Safety Data Sheet	
Volume solids	%	70 ±2 (ISO 3233:1988)	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)	
Total mass of solids	g/l	abt. 1200	TEKNODUR 0050: abt. 870 TEKNODUR 0090: abt. 730	
Volatile organic compound (VOC)	g/l	abt. 300	TEKNODUR 0050: abt. 430 TEKNODUR 0090: abt. 460	
Recommended film thickness			TEKNODUR 0050:	
- wet	µm	85 - 171	71	
- dry	µm	60 – 120	40	
			TEKNODUR 0090:	
			80	
			40	
Theoretical spreading rate	m ² /l	11.7 – 5.8	TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5	
Drying time, +23°C / 50 % RH		(dry film 80 µm)	(dry film 40 µm)	
- dust free, (ISO 9117-3:2010)		after 1 h	after 1 h	
- touch dry, (DIN 53150:1995)		after 4 h	after 6 h	
Overcoatable, 50 % RH		by itself	TEKNODUR 0050: by itself	
		min.	max.*	min.
		max.*	min.	max.*
+5°C		-	-	after 20 h
				18 months or Extended**
+10°C		after 8 h	12 months or Extended**	-
				-
+23°C		after 4 h	12 months or Extended**	after 12 h
				18 months or Extended**
		by TEKNODUR 0050		TEKNODUR 0090: by itself
		min.	max.*	min.
		max.*	min.	max.*
+5°C		-	-	after 20 h
				-
+10°C		after 8 h	12 months or Extended**	-
				-
+23°C		after 4 h	12 months or Extended**	after 12 h
				-
		by TEKNODUR 0090		
		min.	max.*	
		max.*	min.	max.*
+10°C		after 12 h	after 7 d	
+23°C		after 4 h	after 3 d	

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNODUR 0050 / 0090 POLYURETHANE SYSTEMS

K87

	L	M	H
C2	O	O	O
C3	O	O	
C4			
C5	O		

3 30.3.2017

Coating systems for steel surfaces that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy and polyurethane reactive paints. The primer used on steel is TEKNOZINC 80 SE Zinc Rich Epoxy Paint, which protects the steel cathodically like zincing. Semigloss TEKNODUR 0050 or gloss TEKNODUR 0090 weather-resistant polyurethane paint can be used for the topcoat.

Teknos Coating System Symbol	K87a	K87b	K87c	K87d	K87e
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category/ durability range	A3.11/C3/H A4.13/C4/L	A4.14/C4/M	A4.15/C4/H A5I.04/C5-I/M A5M.05/C5-M/M	-	A5I.05/C5-I/H A5M.06/C5-M/H
SFS-EN ISO 12944-5 (1998) symbol / corrosivity category/ durability range	S3.21/C3/H S4.19/C4/L S6.05/C5-I/M	S3.22/C3/H S4.20/C4/M	S4.21/C4/H S6.06/C5-I/H S7.07/C5-M/M	S4.22/C4/H	S4.23/C4/H S7.09/C5-M/H
The coating system structure:	EPZn(R)EP PUR160/3- FeSa 2½	EPZn(R)EP PUR200/3- FeSa 2½	EPZn(R)EP PUR240/3- FeSa 2½	EPZn(R)EP PUR280/4- FeSa 2½	EPZn(R)EP PUR320/4- FeSa 2½
TEKNOZINC 80 SE Zinc Rich Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
TEKNOPLAST PRIMER 7 MIOX Epoxy Primer	1 x 80 µm	1 x 120 µm	1 x 140 µm	2 x 100 µm	2 x 120 µm
TEKNODUR 0050 or TEKNODUR 0090 Polyurethane Paint	1 x 40 µm	1 x 40 µm	1 x 60 µm	1 x 40 µm	1 x 40 µm
Total film thickness	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNODUR 0050 Top Coat	101	118	142	152	169

Example of the coating system's marking: K87a - SFS-EN ISO 12944-5/ A3.11(EPZn(R)EPPUR160/3-FeSa 2½).

USAGE Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
K87a	Protection for steel surfaces in corrosivity categories C3 and C4.
K87b	Protection for steel surfaces in corrosivity categories C3 and C4.
K87c	Protection for steel surfaces outdoors in corrosivity categories C4 and C5.
K87d	Protection for steel surfaces in corrosivity category C4.
K87e	Protection for steel surfaces outdoors in extremely strenuous conditions in corrosivity categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel Surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

PTO

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.
The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.
The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

NOTE! TEKNOZINC 80 SE is to be applied to bare steel only, not over an old paint coat.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOZINC 80 SE	TEKNOPLAST PRIMER 7 MIOX	TEKNODUR 0050 or TEKNODUR 0090	
Data Sheet No.		940	1436	TEKNODUR 0050: 682 TEKNODUR 0090: 683	
Paint type		zinc rich epoxy paint	epoxy primer	polyurethane paint	
Colours		bluish grey	grey and RAL-7002	Teknomix tinting	
Finish		matt	semi-matt	TEKNODUR 0050: semigloss TEKNODUR 0090: gloss	
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9506, TEKNO SOLV 9530	TEKNOSOLV 9521, TEKNO SOLV 6220	
Methods of application		airless spray	airless spray	airless spray	
Airless spray nozzle		0.018 – 0.021" (turn-nozzle)	0.017 – 0.021"	TEKNODUR 0050: 0.011 – 0.013" TEKNODUR 0090: 0.011 – 0.013"	
Application conditions					
- min. temperature	°C	+10	+10	+5	
- max. relative humidity	%	80	80	80	
Safety markings		See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet	
Volume solids	%	50 ±2	70 ±2 (ISO 3233:1988)	TEKNODUR 0050: 56 ±2 (ISO 3233:1988) TEKNODUR 0090: 50 ±2 (ISO 3233:1988)	
Total mass of solids	g/l	abt. 1900	abt. 1200	TEKNODUR 0050: abt. 870 TEKNODUR 0090: abt. 730	
Volatile organic compound (VOC)	g/l	abt. 450	abt. 300	TEKNODUR 0050: abt. 430 TEKNODUR 0090: abt. 460	
Recommended film thickness					
- wet	µm	80	114 - 171	TEKNODUR 0050: 71	
- dry	µm	40	80 - 120	40 TEKNODUR 0090: 80 40	
Theoretical spreading rate	m ² /l	12.5	8.8 – 5.8	TEKNODUR 0050: 14.0 TEKNODUR 0090: 12.5	
Drying time, +23°C / 50 % RH		(dry film 40 µm)	(dry film 80 µm)	(dry film 40 µm)	
- dust free, (ISO 9117-3:2010)		after 5 min	after 1 h	after 1 h	
- touch dry, (DIN 53150:1995)		after 30 min	after 4 h	after 6 h	
Overcoatable, 50 % RH		by itself or TEKNOPLAST PRIMER 7	by itself	TEKNODUR 0050: by itself	
		min.	max.*	min.	max.*
+5°C		-	-	after 20 h	18 months or Extended**
+10°C		after 6 h	3 months or Extended**	after 8 h	5 months or Extended**
+23°C		after 1 h	3 months or Extended**	after 4 h	5 months or Extended**
		by TEKNOPLAST PRIMER 7		TEKNODUR 0050: by itself	
		min.	max.*	min.	max.*
+5°C		-	-	after 20 h	-
+10°C		after 6 h	3 months or Extended**	after 8 h	4 months or Extended**
+23°C		after 1 h	3 months or Extended**	after 4 h	4 months or Extended**
		by TEKNOPLAST PRIMER 7		TEKNODUR 0090: by itself	
		min.	max.*	min.	max.*
+10°C		after 12 h	after 7 d		
+23°C		after 4 h	after 3 d		

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

TEKNOPLAST 50 / 90 EPOXY SYSTEMS

K89

	L	M	H
C2	O		
C3			Zn
C4	O	Zn	Zn
C5	Zn	Zn	Zn

2 15.5.2017

Coating systems for steel and zinc surfaces epoxy that will be exposed to atmospheric corrosion. The systems consist of chemically curing, solvent-borne two pack epoxy paints.

STEEL SURFACES:

Teknos Coating System Symbol	K89a	K89b	K89c	K89d	K89e	K89f
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A2.06/C2/M A3.07/C3/L	A2.07/C2/H A3.08/C3/M	A3.09/C3/H	A4.08/C4/M	A4.09/C4/H	A5.02/C5-I/H A5M.02/C5-M/H
The coating system structure:	EP120/2- FeSa 2½	EP160/3- FeSa 2½	EP200/3- FeSa 2½	EP240/3- FeSa 2½	EP280/4- FeSa 2½	EP320/4- FeSa 2½
TEKNOPOX PRIMER 4 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 80 µm	1 x 100 µm	1 x 80 µm	1 x 80 µm
TEKNOPOX PRIMER 4 Epoxy Primer	-	1 x 40 µm	1 x 80 µm	1 x 100 µm	2 x 80 µm	2 x 100 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	160 µm	200 µm	240 µm	280 µm	320 µm
Coating system VOC, g/m ² with TEKNOPLAST 50 / 90 epoxy top coat	100	130	160	200	230	270

ZINC SURFACES:

Teknos Coating System Symbol	K89g	K89h	K89i	K89j
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	-	-	A7.13/C4/H A7.13/C5-I/H A7.13/C5-M/H
The coating system structure:	EP120/2- ZnSaS	EP200/3- ZnSaS	EP240/3- ZnSaS	EP320/4- ZnSaS
TEKNOPOX PRIMER 4 Epoxy Primer	1 x 80 µm	1 x 80 µm	1 x 100 µm	1 x 80 µm
TEKNOPOX PRIMER 4 Epoxy Primer	-	1 x 80 µm	1 x 100 µm	2 x 100 µm
TEKNOPLAST 50 or TEKNOPLAST 90 Epoxy Paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
Total film thickness	120 µm	200 µm	240 µm	320 µm
Coating system VOC, g/m ² with TEKNOPLAST 50 / 90 epoxy top coat	100	160	200	270

Example of the coating system marking: K89a - SFS-EN ISO 12944-5/A2.06(EP120/2-FeSa 2½).

USAGE

Structural steel exposed to atmospheric corrosion, whenever good gloss and colour retention is essential.

Teknos symbol	Typical use
Steel surfaces:	
K89a	Protection for steel surfaces in corrosivity categories C2 and C3.
K89b	Protection for steel surfaces in corrosivity categories C2 and C3.
K89c	Protection for steel surfaces in corrosivity category C3.
K89d	Protection for steel surfaces in corrosivity category C4.
K89e	Protection for steel surfaces in corrosivity category C4.
K89f	Protection for steel surfaces in corrosivity categories C4 and C5.
Zinc surfaces:	
K89g	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5. In accordance with standard SFS 5873 system (F30.05) in corrosivity categories C3 and C4. Used on aluminium surfaces corresponds the same standard's system F40.05 (EP 120/2-AISaS).
K89h	Protection for hot-dip-galvanized surfaces in corrosivity categories C3, C4 and C5. Also in accordance with standard SFS 5873 system (F40.07) for aluminium surfaces in corrosivity category C5 (EP 200/3-AISaS).
K89i	In accordance with standard SFS 5873 system (F30.07) for hot-dip-galvanized surfaces in corrosivity category C5.
K89j	Protection for hot-dip-galvanized surfaces in corrosivity categories C4 and C5.

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AISaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the components of the paints thoroughly before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grades Ri 1 to Ri 3 can be repaired by touching up. Remove flaking paint and rust from damaged areas by scraping and blast-cleaning. Extend the preparation over the edges of damaged parts into the intact coating. If required, feather the edges of prepared areas. Touch up the prepared patches with the paints of the system to the original film thickness.

Complete renewal: Surfaces with rust grade Ri 4 are to be repainted completely, as the coating has lost its protective power. Blast-clean the whole surface to grade Sa 2½ and paint from priming to top coat as for new work.

Technical Data

Paint		TEKNOPOX PRIMER 4	TEKNOPLAST 50 or TEKNOPLAST 90
Data Sheet	No.	1627	TEKNOPLAST 50: 443 TEKNOPLAST 90: 857
Paint type		epoxy primer	epoxy top coat
Colours		grey, red, yellow	Teknomix tinting
Finish		semi-matt	TEKNOPLAST 50: semigloss TEKNOPLAST 90: gloss
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9506
Methods of application		airless spray	airless spray
Airless spray nozzle		0.013 – 0.019"	TEKNOPLAST 50: 0.013 – 0.019" TEKNOPLAST 90: 0.011 – 0.013"
Application conditions			
- min. temperature	°C	+10	+10
- max. relative humidity	%	80	80
Safety markings		See safety data sheet	See safety data sheet
Volume solids	%	53 ±2	53 ±2
Total mass of solids	g/l	abt. 920	TEKNOPLAST 50: abt. 800 TEKNOPLAST 90: abt. 760
Volatile organic compound (VOC)	g/l	abt. 440	abt. 430
Recommended film thickness			TEKNOPLAST 50: 60 - 100 113 - 190 TEKNOPLAST 90: 60 - 80 113 - 150
- wet	µm	113 - 225	
- dry	µm	60 - 120	
Theoretical spreading rate	m ² /l	8.8 – 4.4	TEKNOPLAST 50: 8.8 – 5.3 TEKNOPLAST 90: 8.8 – 6.6
Drying time, +23 °C / 50 % RH		(dry film 60 µm)	(dry film 60 µm)
- dust free, (ISO 9117-3:2010)		after 15 min.	after 1 h
- touch dry, (DIN 53150:1995)		after 1 h 15 min.	after 4 h
Overcoatable, 50 % RH		by itself or with TEKNOPLAST 50 or 90:	by itself:
		min.	max.*
	+10°C	after 6 h	after 6 months
	+23°C	after 2 h	after 6 months
		min.	max.*
		after 6 h	after 1 month
		after 2 h	after 1 month

* Maximum overcoating interval without roughening.

TEKNOMASTIC 80 PRIMER SYSTEMS

K93

	L	M	H
C2	O	O	O
C3	O	O	Zn
C4		Zn	Zn
C5	Zn	Zn	Zn

1 1.2.2016

Coating systems for anti-corrosive painting on steel and zinc surfaces. Products used in the systems are high solid content TEKNOMASTIC 80 PRIMER Epoxy Primer and high solid content TEKNODUR COMBI 3430 Polyurethane Paint. The systems' paints are also suitable to use for maintenance painting on wire-brushed surfaces (St 2).

STEEL SURFACES:

Teknos Coating System Symbol	K93a	K93b	K93c
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A3.09/C3/H	A4.09/C4/H	A5I.02/C5-I/H A5M.02/C5-M/H
SFS-EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S3.18/C3/H S4.12/C4/L S7.02/C5-M/L	S4.14/C4/H S6.03/C5-I/H	S4.23/C4/H S6.04/C5-I/H S7.04/C5-M/H
SFS 5873 corrosivity category / durability range	-	-	-
The coating system structure:	EPPUR200/2- FeSa 2½	EPPUR280/3 FeSa 2½	EPPUR320/2 FeSa 2½
TEKNOMASTIC 80 PRIMER Epoxy Primer	1 x 120 µm	1 x 200 µm	1 x 200 µm
TEKNODUR COMBI 3430 Polyurethane Paint	1 x 80 µm	1 x 80 µm	1 x 120 µm
Total film thickness	200 µm	280 µm	320 µm
Coating system VOC, g/m ²	82	101	127

ZINC SURFACES:

Teknos Coating System Symbol	K93d	K93e	K93f	K93g
SFS-EN ISO 12944-5 (2007) symbol / corrosivity category / durability range	A7.10/C3/H A7.10/C4/M A7.10/C5-I/L A7.10/C5-M/L	A7.11/C4/H A7.11/C5-I/M A7.11/C5-M/M	A7.12/C4/H A7.12/C5-I/M A7.12/C5-M/M	A7.13/C5-I/H A7.13/C5-M/H
SFS-EN ISO 12944-5 (1998) symbol / corrosivity category / durability range	S9.10/C3/H S9.10/C4/M	S9.11/C4/H S9.11/C5-M/M	-	-
The coating system structure:	EP120/1- ZnSaS	EP160/1- ZnSaS	EPPUR240/2- ZnSaS	EPPUR320/2- ZnSaS
TEKNOMASTIC 80 PRIMER Epoxy Primer	1 x 120 µm	1 x 160 µm	1 x 120 µm	1 x 200 µm
TEKNODUR COMBI 3430 Polyurethane Paint	-	-	1 x 120 µm	1 x 120 µm
Total film thickness	120 µm	160 µm	240 µm	320 µm
Coating system VOC, g/m ²	29	39	108	127

Example of the coating system marking: K93a - SFS-EN ISO 12944-5/ A3.09(EP200/2-FeSa 2½)

Usage Protection for steel and zinc surfaces exposed to atmospheric corrosion.

Teknos symbol	Typical use
STEEL SURFACES:	
K93a	Protection for steel surfaces in corrosivity category C3.
K93b	Protection for steel surfaces in corrosivity category C4.
K93c	Protection for steel surfaces in corrosivity categories C4 and C5.
SINKKIPINNAT:	
K93d	Hot-dip-galvanized surfaces outdoors in categories C3 – C5.
K93e	Hot-dip-galvanized surfaces outdoors in categories C4 and C5.
K93f	Hot-dip-galvanized surfaces outdoors in categories C4 and C5.
K93g	Hot-dip-galvanized surfaces outdoors in categories C4 and C5.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Old painted surfaces suitable for overcoating: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication Primer

The coating systems are compatible with KORRO E Epoxy Prefabrication Primer, KORRO SE Zinc Epoxy Prefabrication Primer and KORRO SS Zinc Silicate Prefabrication Primer.

Continues

Application Stir the paints thoroughly before use.
Apply the paints to a dry, dust-free surface to the required film thickness according to the specifications. The air temperature and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table below.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance **Touch-up:** Surfaces with rust grade Ri 3 can be repaired by touching-up.
Remove flaking paint and rust from damaged areas by scraping, wire-brushing or if possible by blast-cleaning. Extend the preparation over the edges over the damaged areas into the intact coating. If required, feather the edges of prepared areas. Touch-up the prepared patches with the paints of the system to the original film thickness.
If a uniform appearance is desired, the whole surface should be cleaned according to maintenance instructions given by Teknos and then overcoated with the system's top coat.

Complete renewal: When the surface rust grade is Ri 4 the maintenance painting is done as a renewal painting. Blast-clean the whole surface to grade Sa 2½ and renew the paint from start.

Technical Data

Paint		TEKNOMASTIC 80 PRIMER	TEKNODUR COMBI 3430		
Data Sheet	No.	1797	1144		
Paint type		Epoxy Primer	Polyurethane Paint		
Colours		red, RAL-7035, RAL-9003	Teknomix-tinting		
Finish		gloss	3430-02: semi-matt, 3430-05: semigloss, 3430-09: gloss		
Thinner		TEKNOSOLV 9506	TEKNOSOLV 9506		
Methods of application		airless spray, brush or roller	airless sprays, conventional spray		
Airless spray nozzle		0.013 – 0.019"	0.013 – 0.017"		
Application conditions					
- min. temperature	°C	+10	+5		
- max. relative humidity	%	80	80		
Safety markings		See Safety Data Sheet	See Safety Data Sheet		
Volyme solids	%	82 ±2	3430-02: 61 ±2, 3430-05: 61 ±2, 3430-09: 58 ±2		
Total mass of solids	g/l	abt. 1300	3430-02: 1120, 3430-05: 1120, 3430-09: 920		
Volatile organic compound (VOC)	g/l	abt. 200	3430-02: abt. 350, 3430-05: abt. 350, 3430-09: abt. 380		
Recommended film thickness					
- wet	µm	146 - 244	131 - 197		
- dry	µm	120 - 200	80 - 120		
Theoretical spreading rate	m²/l	4.1 – 6.8	5.1 – 7.6		
Drying time at +23°C / 50 % RH		(dry film 120 µm)	(dry film 80 µm)		
- dust free, (ISO 9117-3:2010)		after 2 h	after 30 min		
- touch dry, (DIN 53150:1995)		after 6 h	after 5 h		
Overcoatable, 50 % RH		by itself	by itself		
		min.	max.*	min.	max.*
	+10°C	after 8 h	after 3 months	after 20 h	18 months or Extended**
	+23°C	after 4 h	after 3 months	after 4 h	18 months or Extended**
		by TEKNODUR COMBI 3430			
		min.	max.*		
	+10°C	after 12 h	after 7 d		
	+23°C	after 6 h	after 7 d		

* Maximum overcoating interval without roughening.

** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

BASIC CAMOUFLAGE COATING SYSTEMS

K100

5 15.5.2017

Alkyd coating systems for basic camouflage painting on steel surfaces. The top coating is done either as patterned coating (PNS) or single colour painting (AN11) according to the painting instructions. To be used outdoors in corrosivity category C3.

Teknos Coating System Symbol	K100a	K100b
Marking of the system:	Nm-1-AK160/3-FeSa 2½-PNS	Nm-1-AK160/3-FeSa 2½-AN11
The coating system structure:	AK160/3-FeSa 2½	AK160/3-FeSa 2½
TEKNOSYNT PRIMER 3 Alkyd Primer	1 x 80 µm	1 x 80 µm
SYNTAL AN100 Alkyd Paint	1 x 40 µm	1 x 40 µm
SYNTAL-NAAMIOMAALI Camouflage Paint, AN11	-	1 x 40 µm
SYNTAL-NAAMIOMAALI Camouflage Paint, AN11/AN22/AN33/AN44	1 x 40 µm	-
Total film thickness	160 µm	160 µm
Coating system VOC, g/m ²	150	150

Usage K100a, b: Steel surfaces outdoors in corrosivity category C3.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast-cleaning to preparation grade Sa 2½ (ISO 8501-1). Roughening the surface of thin plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication primer KORRO PVB, KORRO E Epoxy and KORRO SS Zinc Silicate Prefabrication primers can be used, when required.

Application Stir the paints homogenous before use.

The primer is applied by airless spray to the required film thickness. When using brush, the application is done twice.

The intermediate paint is applied by spray or brush.

The top coat is applied by spray or brush. The pattern application is done according to the instructions of the Defence Forces.

The technical data of the paints are given in the table below and in the data sheets of the products.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table.

Maintenance Wash off all contaminants from the surfaces. Remove poorly adherent paint. Scrape and wire-brush rusty parts. Touch up the prepared patches with alkyd primer (TEKNOSYNT PRIMER 3). Touch-up painting or overcoating is done with SYNTAL AN100. The camouflage painting is touched up or renewed with SYNTAL-NAAMIOMAALI Camouflage Paint.

Technical data of the paints

Paint	TEKNOSYNT PRIMER 3	SYNTAL AN100	SYNTAL-NAAMIOMAALI			
Data Sheet no.	335	273	274			
Paint type	alkyd primer	alkyd paint	alkyd paint			
Colours	yellow, grey, red and black	dark green	AN11 dark green AN22 light green AN33 brown AN44 black			
Finish	semi-matt	4 ± 2 (viewed at 60° angle)	full-matt			
Thinner	TEKNOSOLV 9507 (Teknosynt Solv), TEKNOSOLV 1621	TEKNOSOLV 9507 (Teknosynt Solv), TEKNOSOLV 1621	TEKNOSOLV 9507 (Teknosynt Solv), TEKNOSOLV 1621			
Methods of application	airless spray, brush	airless spray, brush	spray			
Airless spray nozzle	0.015 – 0.018"	0.011 – 0.015"	0.011 – 0.015"			
Application conditions - min. temperature °C - max. relative humidity %	+5 80	+5 80	+5 80			
Safety markings	See Material Safety Data Sheet	See Material Safety Data Sheet	See Material Safety Data Sheet			
Volume solids %	45 ±2	50 ±2	50 ±2			
Total mass of solids g/l	about 740	about 780	about 680			
Volatile organic compound (VOC) g/l	about 480	about 400	about 410			
Recommended film thickness - wet µm - dry µm	177 80	80 40	80 40			
Theoretical spreading rate m ² /l	5.6	12.5	12.5			
Drying time, +23°C / RH 50% - dust free - touch dry	(dry film 40 µm) after 1 h after 2 h	(dry film 40 µm) after 1 h after 3 h	(dry film 40 µm) after 1 h after 1 h			
Overcoatable	by itself or SYNTAL AN100:	by itself or SYNTAL-NAAMIOMAALI:	by itself:			
	min.	max.	min.	max.	min.	max.
+5°C	after 8 h	-	after 12 h	-	after 12 h	-
+23°C	after 3 h	-	after 6 h	-	after 6 h	-
	The drying is considerably quicker at higher temperatures.		-	-	-	-

BASIC CAMOUFLAGE COATING SYSTEM

K101

3 12.5.2017

Alkyd coating system for steel structures indoors and in slight atmospheric corrosion (corrosivity categories C1 and C2).

Teknos coating system symbol	K101a
Marking of the system	Nm-2-AK120/2-FeSa 2½-AN100
Coating system structure:	AK120/2 FeSa 2½
TEKNOSYNT PRIMER 3 Alkyd Primer	1 x 80 µm
SYNTAL AN100 Alkyd Paint	1 x 40 µm
Total film thickness	120 µm
Coating system VOC, g/m ²	120

Usage K101a: Steel surfaces in corrosivity categories C1 and C2.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast-cleaning to preparation grade Sa 2½ (ISO 8501-1).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication primer KORRO PVB, KORRO E Epoxy and KORRO SS Zinc Silicate Prefabrication primers can be used, when required.

Application Stir the paints homogenous before use.

The primer is applied by airless spray to the required film thickness. When using brush, the application is done twice.

The top coat is applied by spray or brush.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Wash off all contaminants from the surfaces. Remove poorly adherent paint. Scrape and wire-brush rusty parts. Touch up the prepared patches with alkyd primer (TEKNOSYNT PRIMER 3). Touch-up painting or overcoating is done with SYNTAL AN100

Technical data of the paints

Paint	TEKNOSYNT PRIMER 3	SYNTAL AN100		
Data Sheet no.	335	273		
Paint type	alkyd primer	alkyd paint		
Colours	yellow, grey, red and black	dark green		
Finish	semi-matt	4 ± 2 (viewed at 60° angle)		
Thinner	TEKNOSOLV 9507 (Teknosynt Solv), TEKNOSOLV 1621	TEKNOSOLV 9507 (Teknosynt Solv), TEKNOSOLV 1621		
Methods of application	airless spray, brush	airless spray, brush		
Airless spray nozzle	0.015 – 0.018"	0.011 – 0.015"		
Application conditions				
- min. temperature °C	+5	+5		
- max. relative humidity %	80	80		
Safety markings	See Material Safety Data Sheet	See Material Safety Data Sheet		
Volume solids %	45 ±2	50 ±2		
Total mass of solids g/l	about 740	about 780		
Volatile organic compound (VOC) g/l	about 480	about 400		
Recommended film thickness				
- wet µm	177	80		
- dry µm	80	40		
Theoretical spreading rate m ² /l	5.6	12.5		
Drying time, +23°C / RH 50 %	(dry film 40 µm)	(dry film 40 µm)		
- dust free	after 1 h	after 1 h		
- touch dry	after 2 h	after 3 h		
Overcoatable	by itself or SYNTAL AN100:	by itself:		
	min.	max.	min.	max.
+5°C	after 8 h	-	after 12 h	-
+23°C	after 3 h	-	after 6 h	-
	The drying is considerably quicker at higher temperatures		-	

BASIC CAMOUFLAGE COATING SYSTEMS

K102

4 15.5.2017

Alkyd coating systems for basic camouflage painting of metal surfaces. The top coating is done either as patterned coating (PNS) or single colour painting (AN11) according to the painting instructions. To be used outdoors in corrosivity class C2.

Teknos coating system symbol	K102a	K102b	K102c	K102d
Marking of the system:	Nm-3-AK120/3-FePe-PNS	Nm-3-AK120/3-FePe-AN11	Nm-3-AK120/3-AIPe-PNS	Nm-3-AK120/3-AIPe-AN11
Coating system structure:	AK120/3-FePe	AK120/3-FePe	AK120/3-AIPe	AK120/3-AIPe
TEKNOLAC PRIMER 0168-10 Alkyd primer	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
SYNTAL AN100 Alkyd paint	1 x 40 µm	1 x 40 µm	1 x 40 µm	1 x 40 µm
SYNTAL-NAAMIOMAALI, AN11	-	1 x 40 µm	-	1 x 40 µm
SYNTAL-NAAMIOMAALI, AN11/AN22/AN33/AN44	1 x 40 µm	-	1 x 40 µm	-
Total film thickness	120 µm	120 µm	120 µm	120 µm
Coating system VOC, g/m ²	100	100	100	100

Usage K102a, b: Steel surfaces in corrosivity category C2.
K102c, d: Aluminium surfaces in corrosivity category C4.

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast-cleaning to preparation grade Sa 2½ (ISO 8501-1).

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication primer KORRO PVB, KORRO E Epoxy, KORRO SE Zinc Epoxy and KORRO SS Zinc Silicate Prefabrication primers can be used, when required.

Application Stir the paints homogenous before use.

The primer and intermediate paint are applied by spray and brush.

The top coat is applied by spray or brush. The pattern application is done according to the instructions of the Defence Forces.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Wash off all contaminants from the surfaces. Remove poorly adherent paint. Scrape and wire-brush rusty parts. Touch up the prepared patches with alkyd primer (TEKNOLAC PRIMER 0168-10). Touch-up painting or overcoating is done with SYNTAL AN100. The camouflage painting is touched up or renewed with SYNTAL-NAAMIOMAALI Camouflage Paint.

Technical data of the paints

Paint	TEKNOLAC PRIMER 0168-10		SYNTAL AN100		SYNTAL-NAAMIOMAALI	
Data Sheet no.	1099		273		274	
Paint type	alkyd primer		alkyd paint		alkyd paint	
Colours	grey, reddish brown, yellow, white and black		dark green		AN11 dark green AN22 light green AN33 brown AN44 black	
Finish	full-matt		4 ± 2 (viewed at 60° angle)		full-matt	
Thinner	TEKNOSOLV 9502, TEKNOSOLV 1639		TEKNOSOLV 9507 (Teknosynt Solv), TEKNOSOLV 1621		TEKNOSOLV 9507 (Teknosynt Solv), TEKNOSOLV 1621	
Methods of application	airless spray, brush		airless spray, brush		spray	
Airless spray nozzle	0.013 – 0.018"		0.011 – 0.015"		0.011 – 0.015"	
Application conditions						
- min. temperature °C	+5		+5		+5	
- max. relative humidity %	80		80		80	
Safety markings	See Material Safety Data Sheet		See Material Safety Data Sheet		See Material Safety Data Sheet	
Volume solids %	49 ±2		50 ±2		50 ±2	
Total mass of solids g/l	about 860		about 780		about 680	
Volatile organic compound (VOC) g/l	about 470		about 400		about 410	
Recommended film thickness						
- wet µm	81		80		80	
- dry µm	40		40		40	
Theoretical spreading rate m ² /l	12.2		12.5		12.5	
Drying time, +23°C / 50 % RH	(dry film 40 µm)		(dry film 40 µm)		(dry film 40 µm)	
- dust free	-		after 1 h		after 1 h	
- touch dry	after 20 min		after 3 h		after 1 h	
Overcoatable	by SYNTAL AN100:		by itself or SYNTAL-NAAMIOMAALI:		by itself:	
	min.	max.	min.	max.	min.	max.
+5°C	after 4 h	-	after 12 h	-	after 12 h	-
+23°C	after 45 min	-	after 6 h	-	after 6 h	-
	The drying is considerably quicker at higher temperatures.		-		-	

BASIC CAMOUFLAGE COATING SYSTEMS

K110

7 4.7.2017

Polyurethane coating systems for basic camouflage painting on steel surfaces. The top coating is done either as patterned coating (PNS) or single colour painting (AN11) in accordance with the painting instructions. To be used outdoors in corrosivity classes C3 and C4.

If desired for better resistant against wear, scratches and weatherproofing the top coat can be varnished over with TEKNODUR 0210 Camouflage Varnish. The topcoat can be varnished over with TEKNODUR 0210 Camouflage Varnish when required better resistance to wear, scratches and weathering.

Teknos Coating System Symbol	K110	K110B
Marking of the system:	Nm-5-EPZn(R)EPPUR140/3-FeSa 2½-PNS	Nm-5B-EPZn(R)EPPURLA165/4-FeSa 2½-PNS
Coating system structure:	EPZn(R)EPPUR140/3-FeSa 2½	EPZn(R)EPPURLA165/4-FeSa 2½
TEKNOZINC 90 SE Zinc Epoxy Paint	1 x 40 µm	1 x 40 µm
INERTA PRIMER 5 AN100 Epoxy Camouflage Paint	1 x 60 µm	1 x 60 µm
INERTA 70 Camouflage Paint, AN11/AN22/AN33/AN44	1 x 40 µm	1 x 40 µm
TEKNODUR 0210 Camouflage Varnish	-	1 x 25 µm
Total film thickness	140 µm	165 µm
Paint system VOC, g/m ² with TEKNODUR 0210 Camouflage Varnish	130	160

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast-cleaning to preparation grade Sa 2½ (ISO 8501-1). Roughening the surface of thin plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication primer

KORRO SE Zinc Epoxy and KORRO SS Zinc Silicate Prefabrication primers can be used, when required.

Application Stir the components of the paints homogenous before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The pattern application is done according to the instructions of the Defence Forces.

It is recommended to use conventional spray for the application of TEKNODUR 0210 Camouflage Varnish whereupon the varnish is to be thinned with TEKNOSOLV 9526 to viscosity 15 - 20 s DIN 4.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Wash off all contaminants from the surfaces. Remove poorly adherent paint. Wire-brush rusty parts. Touch up the prepared patches with INERTA PRIMER 5 AN100. The camouflage painting is touched up or renewed with INERTA 70 Camouflage Paint., additionally with TEKNODUR 210 Camouflage Varnish if required.

Technical data of the paints

Paint	TEKNOZINC 90 SE	INERTA PRIMER 5 AN100	INERTA 70 CAMOUFLAGE PAINT	TEKNODUR 0210 CAMOUFLAGE VARNISH					
Data Sheet no.	15	277	278	1541					
Paint type	zinc epoxy paint	epoxy camouflage paint	polyurethane camouflage paint	polyurethane varnish					
Colours	bluish grey	AN100 green	AN11 dark green, AN22 light green, AN33 brown, AN44 black	varnish					
Finish	matt	4 ± 2 (EN ISO 2813:1999, 60°), 60 µm dry film thickness	full-matt	Max. 1 (EN ISO 2813:1999, 60°) Max. 3 (EN ISO 2813:1999, 85°)					
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9506	TEKNOSOLV 9502, TEKNOSOLV 9521	TEKNOSOLV 9526					
Methods of application	airless spray	airless spray	spray	conventional spray					
Airless spray nozzle	0,018 - 0,021" (turn-nozzle)	0,013 - 0,021"	0,011 - 0,015"	-					
Application conditions - min. temperature °C - max. relative humidity %	+10 80	+10 80	+5 80	+5 80					
Safety markings	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet	See Safety Data Sheet					
Volume solids %	50 ±2	55 ±2	40 ±2	45 ±2					
Total mass of solids g/l	about 2100	about 1100	about 560	about 490					
Volatile organic compound (VOC) g/l	about 450	about 430	about 500	about 530					
Recommended film thickness - wet film µm - dry film µm	80 40	109 60	100 40	55 25					
Theoretical spreading rate m ² /l	12,5	9,2	10	18,0					
Drying time, +23°C / 50 % RH - dust free - touch dry	(dry film 40 µm) after 5 min after 30 min	(dry film 60 µm) after 1 h after 4 h	(dry film 40 µm) after ¼ h after 1 h	(dry film 25 µm) after 1 h after 6 h					
Overcoatable	by itself:	by itself:	by itself:	by itself:					
	min.	max. *	min.	max. *	min.	max.	min.	max.	
	+5°C	-	-	-	-	after 1 d	-	after 20 h	-
	+10°C	after 6 h	after 18 months	after 18 h	after 6 months	-	-	-	-
	+23°C	after 1 h	after 18 months	after 6 h	after 6 months	after 6 h	-	after 12 h	-
		by INERTA PRIMER 5 AN100:		by INERTA 70 Camouflage Paint:					
	+10°C	min.	max. *	min.	max. *				
	+23°C	after 6 h	after 3 months	after 18 h	after 7 d				
	after 1 h	after 3 months	after 6 h	after 3 d					

* Maximum overcoating interval without roughening.

BASIC CAMOUFLAGE COATING SYSTEMS

K111

8 15.5.2017

Polyurethane coating systems for basic camouflage painting on steel surfaces. The top coating is done either as patterned coating (PNS) or single colour painting (AN11) in accordance with the painting instructions. To be used outdoors in corrosivity class C3. The topcoat can be varnished over with TEKNODUR 0210 Camouflage Varnish when required better resistance to wear, scratches and weathering.

Teknos Coating System Symbol	K111	K111B
Marking of the system:	Nm-6-EPPUR160/3-FeSa 2½-PNS	Nm-6B-EPPURLA185/4-FeSa 2½-PNS
Coating system structure:	EPPUR160/3-FeSa 2½	EPPURLA185/4-FeSa 2½
INERTA PRIMER 5 Epoxy Primer, red	1 x 60 µm	1 x 60 µm
INERTA PRIMER5 AN100 Epoxy Camouflage Paint	1 x 60 µm	1 x 60 µm
INERTA 70 Camouflage Paint, AN11/AN22/AN33/AN44	1 x 40 µm	1 x 40 µm
TEKNODUR 0210 Camouflage Varnish	-	1 x 25 µm
Total film thickness	160 µm	185 µm
Paint system VOC, g/m ² with TEKNODUR 0210 Camouflage Varnish	140	170

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast-cleaning to preparation grade Sa 2½ (ISO 8501-1). Roughening the surface of thin plate improves the adhesion of the paint to the substrate.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication primer

KORRO E Epoxy, KORRO SE Zinc Epoxy and KORRO SS Zinc Silicate Prefabrication primers can be used, when required.

Application Stir the components of the paints homogenous before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The pattern application is done according to the instructions of the Defence Forces.

Apply INERTA PRIMER 5 preferably by airless spray, since only this method provides the recommended film thicknesses in a single operation.

It is recommended to use conventional spray for the application of TEKNODUR 0210 Camouflage Varnish whereupon the varnish is to be thinned with TEKNOSOLV 9526 to viscosity 15 - 20 s DIN 4.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Wash off all contaminants from the surfaces. Remove poorly adherent paint. Wire-brush rusty parts. Touch up the prepared patches with INERTA PRIMER 5 AN100. The camouflage painting is touched up or renewed with INERTA 70 Camouflage Paint, additionally with TEKNODUR 210 Camouflage Varnish if required.

Technical data of the paints

Paint	INERTA PRIMER 5		INERTA PRIMER 5 AN100		INERTA 70 Camouflage Paint		TEKNODUR 0210 CAMOUFLAGE VARNISH		
Data sheet no.	87		277		278		1541		
Paint type	epoxy primer		epoxy camouflage paint		polyurethane camouflage paint		polyurethane varnish		
Colours	red		AN100 green		AN11 dark green AN22 light green AN33 brown AN44 black		varnish		
Finish	matt		4 ± 2 (EN ISO 2813:1999, 60°), 60 µm dry film thickness		full-matt		Max. 1 (EN ISO 2813:1999, 60°) Max. 3 (EN ISO 2813:1999, 85°)		
Thinner	TEKNOSOLV 9506		TEKNOSOLV 9506		TEKNOSOLV 9502, TEKNOSOLV 9521		TEKNOSOLV 9526		
Methods of application	airless spray		airless spray		spray		conventional spray		
Airless spray nozzle	0.013 – 0.018"		0.013 – 0.021"		0.011 – 0.015"		-		
Application conditions	°C		°C		°C		°C		
- min. temperature	+10		+10		+5		+5		
- max. relative humidity	80		80		80		80		
Safety markings	See material safety data sheet		See material safety data sheet		See material safety data sheet		See Material Safety Data Sheet		
Volume solids	%		%		%		%		
	55 ±2		55 ±2		40 ±2		45 ±2		
Total mass of solids	g/l		g/l		g/l		g/l		
	about 1000		about 1100		about 560		about 490		
Volatile organic compound (VOC)	g/l		g/l		g/l		g/l		
	about 430		about 430		about 500		about 530		
Recommended film thickness	µm		µm		µm		µm		
- wet	109		109		100		55		
- dry	60		60		40		25		
Theoretical spreading rate	m ² /l		m ² /l		m ² /l		m ² /l		
	9.2		9.2		10		18,0		
Drying time, +23°C / 50 % RH	(dry film 60 µm)		(dry film 60 µm)		(dry film 40 µm)		(dry film 25 µm)		
- dust free	after 1 h		after 1 h		after ¼ h		after 1 h		
- touch dry	after 3 h		after 4 h		after 1 h		after 6 h		
Overcoatable	by itself or with INERTA PRIMER 5 AN100:		by itself:		by itself:		by itself:		
	+5°C	min.	max. *	min.	max. *	min.	max.	min.	max.
		-	-	-	-	after 1 d	-	after 20 h	-
	+10°C	after 12 h	after 6 months	after 18 h	after 6 months	-	-	-	-
		after 4 h	after 6 months	after 6 h	after 6 months	after 6 h	-	after 12 h	-
	+10°C			by INERTA 70 Camouflage Paint:					
min.		max. *	min.	max. *					
after 18 h		after 7 d	after 6 h	after 3 d					
+23°C	after 6 h	after 3 d	after 6 h	after 3 d					

* Maximum overcoating interval without roughening.

BASIC CAMOUFLAGE COATING SYSTEMS

K113

7 15.5.2017

Polyurethane coating systems for basic camouflage painting on metal surfaces. The top coating is done either as patterned coating (PNS) or single colour painting (AN11) in accordance with the painting instructions. To be used outdoors in corrosivity classes C3 and C4. The topcoat can be varnished over with TEKNODUR 0210 Camouflage Varnish when required better resistance to wear, scratches and weathering.

Teknos Coating System Symbol	K113	K113B
Marking of the system:	Nm-8-EPPUR100/2-Zn, Al, FePeSaS-PNS	Nm-8B-EPPURLA125/3-Zn, Al, FePeSaS-PNS
Coating system structure:	EPPUR100/2-Zn, Al, FePeSaS	EPPURLA125/3-Zn, Al, FePeSaS
INERTA PRIMER 5 AN100 Epoxy Camouflage Paint	1 x 60 µm	1 x 60 µm
INERTA 70 Camouflage Paint, AN11/AN22/AN33/AN44	1 x 40 µm	1 x 40 µm
TEKNODUR 0210 Camouflage Varnish	-	1 x 25 µm
Total film thickness	100 µm	125 µm
Coating system VOC, g/m ² with TEKNODUR 0210 Camouflage Varnish	97	130

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Remove mill scale and rust by blast-cleaning to preparation grade Sa 2½ (ISO 8501-1). Roughening the surface of thin plate improves the adhesion of the paint to the substrate.

Zinc surfaces: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are e.g. aluminium oxide and natural sand. It is not recommended to paint galvanized objects that are subjected to immersion strain.

Aluminium surfaces: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication primer

KORRO E Epoxy, KORRO SE Zinc Epoxy and KORRO SS Zinc Silicate Prefabrication primers can be used, when required.

PTO

Application Stir the components of the paints homogenous before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The top coating and pattern application is done according to the instructions of the Defence Forces.

Apply INERTA PRIMER 5 preferably by airless spray, since only this method provides the recommended film thicknesses in a single operation.

It is recommended to use conventional spray for the application of TEKNODUR 0210 Camouflage Varnish whereupon the varnish is to be thinned with TEKNOSOLV 9526 to viscosity 15 - 20 s DIN 4.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Wash off all contaminants from the surfaces. Remove poorly adherent paint. Wire-brush rusty parts. Touch up the prepared patches with INERTA PRIMER 5 AN100. The camouflage painting is touched up or renewed with INERTA 70 Camouflage Paint, additionally with TEKNODUR 210 Camouflage Varnish if required.

Technical data of the paints

Paint	INERTA PRIMER 5 AN100	INERTA 70 Camouflage Paint	TEKNODUR 0210 CAMOUFLAGE VARNISH			
Data sheet no.	277	278	1541			
Paint type	epoxy camouflage paint	polyurethane camouflage paint	polyurethane varnish			
Colours	AN100 green	AN11 dark green AN22 light green AN33 brown AN44 black	varnish			
Finish	4 ± 2 (EN ISO 2813:1999, 60°), 60 µm dry film thickness	full-matt	Max. 1 (EN ISO 2813:1999, 60°) Max. 3 (EN ISO 2813:1999, 85°)			
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9521, TEKNOSOLV 9502	TEKNOSOLV 9526			
Methods of application	airless spray	spray	conventional spray			
Airless spray nozzle	0.013 – 0.021"	0.011 – 0.015"	-			
Application conditions						
- min. temperature °C	+10	+5	+5			
- max. relative humidity %	80	80	80			
Safety markings	See material safety data sheet	See material safety data sheet	See Material Safety Data Sheet			
Volume solids %	55 ±2	40 ±2	45 ±2			
Total mass of solids g/l	about 1100	about 560	about 490			
Volatile organic compound (VOC) g/l	about 430	about 500	about 530			
Recommended film thickness						
- wet µm	109	100	55			
- dry µm	60	40	25			
Theoretical spreading rate m ² /l	9.2	10	18,0			
Drying time, +23°C / 50 % RH						
- dust free	(dry film 60 µm) after 1 h	(dry film 40 µm) after ¼ h	(dry film 25 µm) after 1 h			
- touch dry	after 4 h	after 1 h	after 6 h			
Overcoatable	by itself:	by itself or with TEKNODUR 0210 CAMOUFLAGE VARNISH:	by itself:			
	min.	max. *	min.	max.	min.	max.
+5°C	-	-	after 1 d	-	after 20 h	-
+10°C	after 18 h	after 6 months	-	-	-	-
+23°C	after 6 h	after 6 months	after 6 h	-	after 12 h	-
	by INERTA 70 Camouflage Paint:					
	min.	min.				
+10°C	after 18 h	after 18 h				
+23°C	after 6 h	after 6 h				

* Maximum overcoating time without roughening.

BASIC CAMOUFLAGE COATING SYSTEMS

K114

3 15.5.2017

Reactive coating systems for basic camouflage painting on interior metal surfaces.

Teknos Coating System Symbol	K114a	K114b	K114c
Marking of the system:	Nm-9-EP60/1-ZnPe-AN100	Nm-9-EP60/1-AIPe-AN100	Nm-9-EP60/1-FePe-AN100
Coating system structure:	EP60/1-ZnPe	EP60/1-AIPe	EP60/1-FePe
INERTA PRIMER 5 AN100 Epoxy Camouflage Paint	1 x 60 µm	1 x 60 µm	1 x 60 µm
Total film thickness	60 µm	60 µm	60 µm
Coating system VOC, g/m ²	46	46	46

Surface preparation Steel surfaces: Remove grease and dirt by using appropriate methods.

Zink and aluminium surfaces are washed with RENSA STEEL washing agent for galvanized surfaces and rinsed with water.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Prefabrication primer

KORRO E Epoxy, KORRO SE Zinc Epoxy and KORRO SS Zinc Silicate Prefabrication primers can be used, when required.

PTO

Application Stir the components of the paints homogenous before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

Apply INERTA PRIMER 5 AN 100 preferably by airless spray, since only this method provides the recommended film thicknesses in a single operation

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Wash off all contaminants from the surfaces. Remove poorly adherent paint. Wire-brush rusty parts. Rub down the surface. Touch up the prepared patches with INERTA PRIMER 5 AN100.

Technical data of the paints

Paint	INERTA PRIMER 5 AN100	
Data sheet no.	277	
Paint type	epoxy camouflage paint	
Colours	AN100 green	
Finish	4 ± 2 (EN ISO 2813:1999, 60°), 60 µm dry film thickness	
Thinner	TEKNOSOLV 9506	
Methods of application	airless spray	
Airless spray nozzle	0,013 - 0,021"	
Application conditions		
- min. temperature °C	+10	
- max. relative humidity %	80	
Safety markings	See material safety data sheet	
Volume solids %	55 ±2	
Total mass of solids g/l	abt. 1100	
Volatile organic compound (VOC) g/l	abt. 430	
Recommended film thickness		
- wet µm	109	
- dry µm	60	
Theoretical spreading rate m ² /l	9,2	
Drying time, +23°C / 50 % RH	(dry film 60 µm)	
- dust free	after 1 h	
- touch dry	after 4 h	
Overcoatable	by itself:	
	min.	max. *
+10°C	after 18 h	after 6 months
+23°C	after 6 h	after 6 months

* Maximum overcoating time without roughening.

BASIC CAMOUFLAGE COATING SYSTEMS

K122

3 19.12.2011

Powder coating systems for basic camouflage painting on thin-plate surfaces and other objects, which are chemically prepared or mechanically cleansed before powder coating. The same quality and durability of camouflage coating is achieved by both preparation methods.

The coating is done either as single colour painting (AN11, AN22, AN33 or AN44) or as patterned coating (PNS), in which case the pattern application is done according to the instructions over the powder coating with solvent-borne camouflage paint.

To be used outdoors in corrosivity categories C4 and C5.

CHEMICALLY PREPARED SURFACES:

Teknos Coating System Symbol	K122a
Marking of the system:	Nm30-PE180/2-PNS
The coating system structure:	PE180/2-Fe/Al/Zn
INFRALIT PE 8317-10 AN100 Polyester Powder	1 x 80 µm
INFRALIT PE 8431-10 AN11/AN22/AN33/AN44 Polyester Powder	1 x 100 µm
Total film thickness	180 µm
Coating system VOC, g/m ²	0
INERTA 70 CAMOUFLAGE PAINT AN11/AN22/AN33/AN44 (pattern application over powder coating)	1 x 40 µm
Total film thickness	220 µm
Coating system VOC, g/m ²	50

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. The surfaces are prepared according to the different materials as follows:

Steel surfaces: Zinc phosphating. Other preparations, such as iron phosphating and newer chemical pre-treatments are acceptable, if the produced corrosion protection has been tested and documented.

Aluminium surfaces: Chromating. Other preparations, such as zinc or iron phosphating and newer chemical pre-treatments are acceptable, if the produced corrosion protection has been tested and documented.

Zinc and similar surfaces: Chromating or zinc phosphating. Other preparations, such as iron phosphating and newer chemical pre-treatments are acceptable, if the produced corrosion protection has been tested and documented.

MECHANICALLY CLEANSSED SURFACES:

Teknos Coating System Symbol	K122b	K122c
Marking of the system:	Nm30-PE180/2-PNS	Nm30-PE180/2-PNS
The coating system structure:	PE180/2-FeSa 2½	PE180/2-AISaS/ZnSaS
INFRALIT PE 8316-05 Zinc Polyester Powder	1 x 80 µm	—
INFRALIT PE 8317-10 AN100 Polyester Powder	—	1 x 80 µm
INFRALIT PE 8431-10 AN11/AN22/AN33/AN44 Polyester Powder	1 x 100 µm	1 x 100 µm
Total film thickness	180 µm	180 µm
Coating system VOC, g/m ²	0	0
INERTA 70 CAMOUFLAGE PAINT AN11/AN22/AN33/AN44 (pattern application over powder coating)	1 x 40 µm	1 x 40 µm
Total film thickness	220 µm	220 µm
Coating system VOC, g/m ²	50	50

Surface preparation Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods, see EN ISO 12944, section 4. The surfaces are prepared according to the different materials as follows:
Steel surfaces: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). Roughening the surface of thin plate improves the adhesion of the paint to the substrate.
Aluminium surfaces: The surfaces are sweep blast-cleaned (SaS).
Zinc and similar surfaces: The surfaces are sweep blast-cleaned (SaS).

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Measuring the film thickness

The measuring point must be noticed when measuring the film thickness of PNS patterned surfaces, because the minimum film thickness depends on the number of paint coats on the measuring point.

Usage Protecting steel, aluminium and zinc surfaces in weather strain.

Teknos symbol	Typical use
CHEMICALLY PREPARED SURFACES:	
K122a	Steel, aluminium and zinc surfaces outdoors in corrosivity category C4.
MECHANICALLY CLEANSED SURFACES :	
K122b	Steel surfaces outdoors in corrosivity category C5.
K122c	Aluminium and zinc surfaces outdoors in corrosivity category C4.

Technical Data

Paint	INFRALIT PE 8431-10	INFRALIT PE 8316-05	INFRALIT PE 8317-10	INERTA 70 CAMOUFLAGE PAINT
Product code	DN26080020/ DN27220020/ DN90330020/ DN70440020	DZN8000020	DN25700020	1770211.../ 1770222.../ 1770233.../ 1770244...
Data sheet no.	1221	1052	1051	278
Paint type	polyester powder	polyester powder	polyester powder	polyurethane paint
Paint description	camouflage powder	zinc enriched powder priming coat	camouflage green powder priming coat	polyurethane camouflage paint
Colours	AN11/AN22/AN33/ AN44	grey	AN100	AN11/ AN22/AN33/AN44
Finish (G60°)	max. 1.5 (G60°) max. 5.0 (G85°)	limit values 50-80	limit values 3-11	Max. 1 (EN ISO 2813:1999, 60°)
Volume solids %	100	100	100	40 ±2
Volatile Organic Compounds (VOC)	0	0	0	abt. 500 g/l
Recommended film thickness, µm	80-120	60-120	60-100	dry film: 40
Theoretical spreading rate	6-10 m²/kg	abt. 6 m²/kg	6-10 m²/kg	10 m²/l
Curing time/Drying time	15 min / 210°C	10 min / 180°C	10 min / 180°C	Dust free, +23°C/50% RH: after 1 h. Overcoatable, +23°C: after 6 h.

BASIC CAMOUFLAGE COATING SYSTEMS

K130

6 23.5.2012

Polyurethane coating systems for basic camouflage painting on polyester plastic surfaces. The top coating is done either as patterned coating (PNS) or single colour painting (AN11) in accordance with the painting instructions. To be used outdoors in corrosivity classes C3 and C4. The topcoat can be varnished over with TEKNODUR 0210 Camouflage Varnish when required better resistance to wear, scratches and weathering.

Teknos Coating System Symbol	K130	K130B
Marking of the system:	Nm-10-EPPUR100/2-UP-PNS	Nm-10B-EPPURLA125/3-UP-PNS
Coating system structure:	EPPUR100/2-UP	EPPURLA125/3-UP
INERTA PRIMER 5 AN100 Epoxy Camouflage Paint	1 x 60 µm	1 x 60 µm
INERTA 70 Camouflage Paint, AN11/AN22/AN33/AN44	1 x 40 µm	1 x 40 µm
TEKNODUR 0210 Camouflage Varnish	-	1 x 25 µm
Total film thickness	100 µm	125 µm
Coating system VOC, g/m ² TEKNODUR 0210 Camouflage Varnish	97	130

Surface preparation Plastic surfaces: Remove grease and dirt from the surfaces. Sand the surfaces lightly (P240/P320 dry sanding, P400/P600 water sanding), after which the sanded surface is carefully cleaned from dust.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Application Stir the components of the paints homogenous before use. Mix base and hardener with each other in the proportions given on the paint labels and stir the mixture thoroughly. Mix only an amount sufficient to be used within the pot life of the mixture.

The top coating and pattern application is done according to the instructions of the Defence Forces.

Apply INERTA PRIMER 5 AN100 preferably by airless spray, since only this method provides the recommended film thicknesses in a single operation.

It is recommended to use conventional spray for the application of TEKNODUR 0210 Camouflage Varnish whereupon the varnish is to be thinned with TEKNOSOLV 9526 to viscosity 15 - 20 s DIN 4.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paints are given in the table below and in the data sheets of the products.

Maintenance Wash off all contaminants from the surfaces. Remove poorly adherent paint. Sand the surfaces. Touch up the prepared patches with INERTA PRIMER 5 AN100. The camouflage painting is touched up or renewed with INERTA 70 Camouflage Paint, additionally with TEKNODUR 210 Camouflage Varnish if required.

Technical data of the paints

Paint	INERTA PRIMER 5 AN100	INERTA 70 Camouflage Paint	TEKNODUR 0210 CAMOUFLAGE VARNISH				
Data sheet no.	277	278	1541				
Paint type	epoxy camouflage paint	polyurethane camouflage paint	polyurethane varnish				
Colours	AN100 green	AN11 dark green AN22 light green AN33 brown AN44 black	varnish				
Gloss	4 ± 2 (EN ISO 2813:1999, 60°), 60 µm dry film thickness)	full-matt	Max. 1 (EN ISO 2813:1999, 60°) Max. 3 (EN ISO 2813:1999, 85°)				
Thinner	TEKNOSOLV 9506	TEKNOSOLV 9502, TEKNOSOLV 9521	TEKNOSOLV 9526				
Methods of application	airless spray	spray	conventional spray				
Airless spray nozzle	0.013 – 0.021"	0.011 – 0.015"	-				
Application conditions - min. temperature °C - max. relative humidity %	+10 80	+5 80	+5 80				
Safety markings	See material safety data sheet	See material safety data sheet	See Material Safety Data Sheet				
Volume solids %	55 ±2	40 ±2	45 ±2				
Total mass of solids g/l	about 1100	about 560	about 490				
Volatile organic compound (VOC) g/l	about 430	about 500	about 530				
Recommended film thickness - wet µm - dry µm	109 60	100 40	55 25				
Theoretical spreading rate m ² /l	9.2	10	18.0				
Drying time, +23°C / 50 % RH - dust free - touch dry Overcoatable	(dry film 60 µm) after 1 h after 4 h by itself:	(dry film 40 µm) after ¼ h after 1 h by itself:	(dry film 25 µm) after 1 h after 6 h by itself:				
	min.	max. *	min.	max.	min.	max.	
	+5°C	-	-	after 1 d	-	after 20 h	-
	+10°C	after 18 h	after 6 months	-	-	-	-
	+23°C	after 6 h	after 6 months	after 6 h	-	after 12 h	-
	by INERTA 70 Camouflage Paint:		-		-		
	min.	max. *					
	+10°C	after 18 h	after 18 h				
	+23°C	after 6 h	after 6 h				

* Maximum overcoating time without roughening.

BASIC CAMOUFLAGE COATING SYSTEM

K140

2 24.9.2004

Camouflage elastomer system for basic camouflage painting on PVC plastic surfaces. The coating is done either as patterned coating (PNS) or single colour painting (AN11) in accordance with the painting instructions. To be used outdoors in corrosivity classes C2, C3 and C4.

Teknos Coating System Symbol	K140a
Marking of the system:	Nm-12-1K-PUR elastomer-25M-PNS
Coating system structure:	1K-PUR elastomer 25/1
TEKNOFLEX camouflage elastomer, AN11/AN22/AN33/AN44	1 x 25 µm
Total film thickness	25 µm
Coating system VOC, g/m ²	85

Surface preparation Remove grease and dirt. Before application dry the surfaces and remove dust and dirt. When maintenance painting surfaces that have been painted previously, avoid overall thick films, as the elasticity will weaken considerably on thick places and may result the film to crack or to chip off.

Instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Application Stir the paint homogenous before use.

The top coating and pattern application is done according to the instructions of the Defence Forces.

The temperature of the air and the surface as well as the relative air humidity during the application and drying period must conform to the figures given in the table. Higher temperatures speed up the drying process. The surface must be dry and free from dust.

The technical data of the paint are given in the table below and in the data sheets of the product.

Maintenance Wash off all contaminants from the surfaces. Remove poorly adherent paint.

Technical data of the paint

Paint	TEKNOFLEX camouflage elastomer	
Technical data sheet	no	763
Paint type	polyurethane elastomer	
Colours	AN11 dark green AN22 light green AN33 brown AN44 black	
Gloss	Max. 1 (EN ISO 2813:1999, 60°)	
Thinner	TEKNOSOLV 9514	
Methods of application	Roller or spray	
Application conditions		
- min. temperature	°C	+5
- max. relative humidity	%	80
Safety markings	See safety data sheet	
Volume solids	%	20 ±2
Total mass of solids	g/l	abt. 310
Volatile organic compound (VOC)	g/l	abt. 680
Recommended film thickness		
- wet	µm	125
- dry	µm	25
Theoretical spreading rate	m ² /l	8.0
Drying time, +23 °C / 50 % RH	(dry film 25 µm)	
- dust free	After 2 min	
- touch dry	After 10 min	
Overcoatable	By itself:	
	min.	max.
+10 °C	After 4 h	-
+23 °C	After 2 h	-

BASIC CAMOUFLAGE COATING SYSTEM

K150

3 28.8.2014

Dark green, water-borne transparent paint for wood and plywood surfaces in outdoor use. Dilution with water in the ratio 1 : 1.

Teknos Coating System Symbol	K150a
Marking of the system	Nm-40-PNS-wood/plywood-AN11
Coating system structure:	camouflage paint <10/1
VISASOL CAMOUFLAGE PAINT, AN11	1 x 2-10 µm*
Total film thickness	< 10 µm
Coating system VOC, g/m ²	30

*Film thickness can't be exactly determined due to structure and quality variations of wood.

Surface preparation The surfaces must be dried and cleaned of dust and rubbish before dipping. The moisture content of the wood is to be below 20%.

- Application** During the application and drying period the temperature of the ambient air, the surface and the paint shall be above +20°C and the relative air humidity below 80%.
- VISASOL CAMOUFLAGE PAINT is stirred well before use. Dilution with water in the ratio 1 : 1.
- The wood to be treated is dipped once into diluted VISASOL CAMOUFLAGE PAINT. The dipping time is 5 - 15 s.
- To ensure that the application with VISASOL CAMOUFLAGE PAINT will be uniform, the contents of the dipping tank must be continuously stirred..
- The wood can be piled after about 1 hour when the drying temperature is +40°C and after about 3 hours when the drying temperature is +23°C.
- Additional information** The storage stability is shown on the label. Store in a tightly closed containers. The best storage temperature is +10°C - +25°C.
MUST NOT FREEZE.

Technical data of the paint

Paint	VISASOL CAMOUFLAGE PAINT	
Technical data sheet	no.	757
Paint type	Water-borne transparent paint	
Colours	AN11 dark green	
Gloss	Max. 3 (EN ISO 2813 : 1999, 60°)	
Thinner	Water	
Methods of application	Dipping tank	
Application conditions	°C	+20
- min. temperature	%	80
- max. relative humidity		
Safety markings	See safety data sheet	
Volume solids	%	19 ± 2
Total mass of solids	g/l	abt. 270
Volatile organic compound (VOC)	g/l	abt. 30
Drying time, +23°C / 50 % RH	after abt. 45 min	
- dust free	after abt. 1 h	
- touch dry	by itself:	
Overcoatable	min.	max.
+10°C	-	-
+23°C	after 3 h	-