

TEKNOMASTIC 80 PRIMER

Epoxy primer

TEKNOMASTIC 80 PRIMER is a two-pack solvent-borne epoxy primer with low solvent content.



Use: As a priming coat or as a single coat in abrasion and chemical resistant epoxy coating systems on blast-cleaned steel. Can also be used for priming zinc, aluminium, thin-plate and acid-proof steel surfaces and as an intermediate coat over zinc epoxy and zinc silicate primers.

The paint is quickly overcoatable and is therefore suited to a fast painting tempo. The paint film withstands heavy abrasion, oils, grease, solvents and chemical splashing.

The paint is suitable for maintenance painting of steel surfaces which are cleaned at least to preparation grade St 2, for other surface preparation methods see Surface preparation.

The paint comes up to the requirements of standard Norsok M-501:2012 (Edition 6) systems 1, 7A and 7B (Certificates 11-17-14/1, 11-17-14/2 and 6-9-15/1).

For the product there is also available a WINTER hardener TEKNOMASTIC WINTER HARDENER 7275, which is used when the painting is done in temperatures below +10°C. When using the WINTER hardener it will strengthen the yellowing and chalking that is typical for epoxy paints. White and light shades are especially susceptible to yellowing.

TECHNICAL DATA

Certificates, approvals and classification	NORSOK M-501
Recommended substrate	Steel, Aluminium, Zinc
Binder	Epoxy
Solids	82 ±2% by volume (ISO 3233:1988)
Total mass of solids	Approx. 1300 g/l
Volatile organic compound (VOC)	TEKNOMASTIC HARDENER 7465 / TEKNOMASTIC WINTER HARDENER 7275 Approx. 200 g/l / Approx. 190 g/l The VOC value provided is the average value for factory produced products, and consequently it will be subject to variations between individual products covered by this TDS.

Theoretical spreading rate	Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m ² /l)
	80	97	10.2
100	121	8.2	
150	182	5.5	
200	243	4.1	
230	280	3.6	

As many of the paint's properties will change if too thick coats are applied, it is not recommended that the product is applied to a film thickness that is more than double of the thickest recommended film.

Practical spreading rate	The values depend on the application technique, surface conditions, overspray, etc.
Colours	RAL colours mentioned in standard NORSOK M-501:2012 (Edition 6). Other colours by agreement. Also available as MIOX-pigmented.
Gloss (60°)	Semi-gloss
Hardener	Comp. B: TEKNOMASTIC HARDENER 7465 or TEKNOMASTIC WINTER HARDENER 7275
Mixing ratio (A:B)	4:1 parts by volume
Pot life	TEKNOMASTIC HARDENER 7465 2 h, TEKNOMASTIC WINTER HARDENER 7275 1.5 h
Thinner	TEKNOSOLV 9506
Storage	The storage stability is shown on the label. Store in a cool place and in tightly closed containers.

DIRECTION FOR USE

Surface preparation	<p>Remove from the surfaces any contaminants that might be detrimental to surface preparation and application. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:</p> <p>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.</p> <p>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 according to standard ISO 12944-5 to paint hot-dip-galvanized objects that are subjected to immersion strain. Painting of hot-dip-galvanized objects that are subjected to immersion strain must be discussed separately with Teknos.</p>
----------------------------	---

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Thin-plate 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.

From the bare steel surfaces the rust is removed to preparation grade at least St 2 (ISO 8501-1).

An alternative method to dry cleaning is high-pressure water jetting with a pressure of over 70 MPa. This water-jetting can be used on intact, well adhering paint coats and/or on steel. After the water jetting the intact paint coats must have a rough surface structure. The cleanliness of the steel surface must be Wa 2 (ISO 8501-4:2006) or according to the specification. A flash-rust degree of maximum M (ISO 8501-4:2006) is allowed before application.

In addition, high pressure water cleaning (HP WC) at 34 – 70 MPa according to the NACE VIS 7/SSPCS-VIS 4 can also be used as long as the cleanliness level of SSPC-SP WJ-3/NACE WJ-3 can be reached. A flash-rust degree of maximum M (NACE VIS 7/SSPCS-VIS 4) is allowed before application.

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: KORRO E Epoxy, KORRO SE Zinc Epoxy and KORRO SS Zinc Silicate Prefabrication Primers can be used, when required.

Application

MIXING OF THE COMPONENTS: Take into consideration the pot life of the mixture when estimating the amount to be mixed at a time. Before application the base and hardener are mixed in right proportion. Stir thoroughly down to the bottom of the vessel. Inadequate stirring or incorrect mixing ratio results in imperfect curing and impaired film properties.

Stir thoroughly before use.

Apply preferably by airless spray as only this method provides the recommended film thickness in a single operation. Suitable airless nozzle size 0.015 - 0.019". Brush or roller can be used for touching up and painting small areas.

When twin-feed spray is used for application, the mixing ratio of the dosage pump must be 4:1. The feed pump pressure and the consumption of components is to be checked during application to ensure of the correct mixing ratio. The components cannot be thinned if twin-feed spray with fixed ratio is used.

Application conditions

The surface to be treated must be dry. When using the standard hardener the temperature of the ambient air, the surface and the product shall be above +10°C during the application and drying period and the relative air humidity below 80%.

When using TEKNOMASTIC WINTER HARDENER 7275, during the application and drying period the temperature of the ambient air and the surface shall be above -5°C and the temperature of the product during mixing and spraying shall be above +15°C. The surface to be treated must be free from ice.

Additionally, the temperature of the surface to be treated and the product must be at least +3°C above the dew point of the ambient air.

Thinning

If needed, thin the paint with TEKNOSOLV 9506.

Drying time	+23 °C / 50% RH (dry film 100 µm) TEKNOMASTIC HARDENER 7465 / TEKNOMASTIC WINTER HARDENER 7275
- dust free	2 h / 3 h (ISO 9117-3:2010)
- touch dry	6 h / 4 h (ISO 9117-5:2012)
- fully cured	7 d / 7 d

Overcoatable	Standard hardener							
	+10 °C		+23 °C					
	min.	max. *	min.	max. *				
surface temperature								
by itself	8 h	6 months	4 h	6 months				
by TEKNOPLAST 50 epoxy paints	8 h	6 months	4 h	6 months				
by TEKNODUR 0050, TEKNODUR COMBI 3560-05 and TEKNODUR COMBI 340-811 polyurethane paints	1 d	3 months	6 h	3 months				
by TEKNODUR COMBI 3560-75 and TEKNODUR COMBI 3430-39 polyurethane paints	1 d	1 month	1 d	1 month				
WINTER hardener								
surface temperature	-5 °C		0 °C		+10 °C		+23 °C	
	min.	max. *	min.	max. *	min.	max. *	min.	max. *
by itself	1 d	2 months	1 d	2 months	8 h	2 months	4 h	2 months
by TEKNODUR COMBI 3560-68 or TEKNOPLAST HS 150	-	-	-	-	10 h	2 months	4 h	2 months
by TEKNODUR 0050	-	-	-	-	10 h	2 months	5 h	2 months

* Maximum overcoating interval without roughening.

When overcoating the product at low temperatures the lowest usability temperature of the top coat has to be checked from the appropriate Data sheet.

A completely clean surface is mandatory to ensure the best intercoat adhesion. If the maximum overcoating interval has been exceeded, the surface must be roughened before overcoating. Increase in film thickness and rise in the relative humidity of the air in the drying space slow down the drying process and effect the overcoating properties.

Cleaning TEKNOSOLV 9506 or TEKNOSOLV 9530.

HEALTH AND SAFETY

Safety and precaution measures See safety data sheet.

Teknos Group Oy Takkatie 3, P.O.Box 107 FI-00371 Helsinki, Finland Tel. +358 9 506 091

The above information is normative and based on laboratory tests and practical experiences. The information is noncommittal, and we cannot accept liability for the results obtained under working conditions beyond our control, and consequently the buyer or the user is not released from the obligation to test the suitability of our products for specific means and application methods under the actual application conditions. Our liability covers only damage caused directly by defects in the products supplied by Teknos. This product is intended for professional use only. This implies that the user possesses sufficient knowledge for using the product correctly with regard to technical and working safety aspects. The latest versions of Teknos' Technical Data Sheets and Safety Data Sheets are available from our homepage www.teknos.com. All trademarks displayed on this document are the exclusive property of Teknos Group or its affiliated companies.