

TEKNOZINC SS A

Zinc Silicate Paint

PAINT TYPE	TEKNOZINC SS A is a two-pack zinc rich ethyl silicate paint.
USAGE	On structural steel exposed to weather or submerged in solvents.
SPECIAL PROPERTIES	After drying TEKNOZINC SS A forms an inorganic coating containing metallic zinc, which protects the steel cathodically, like zincing. The paint has excellent resistance to mechanical abrasion and it withstands dry heat up to +400°C and also different solvents and oils, even on immersion. The paint requires water for drying, which must be considered when planning the paint work, see sections Drying time and Application conditions.

TECHNICAL DATA

Mixing ratio	Base (Comp. A): TEKNOZINC SS A zinc dust paste Hardener (Comp. B): TEKNOZINC SS A silicate part	7 parts by volume 3 parts by volume	
Pot life, +23 °C	4 h		
Solids	52 ±2% by volume		
Total mass of solids	abt. 1700 g/l		
Volatile organic compound (VOC)	abt. 510 g/l		
Recommended film thickness and theoretical spreading rate	Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m ² /l)
	60	115	8,7
	80	153	6,5

Practical spreading rate The values depend on the application technique, surface conditions, overspray, etc.

Maximum recommended film thickness
 - wet film thickness 190 µm
 - dry film thickness 100 µm
 Thicker coats may lead to cracking.

Drying time, +23°C / 50% RH (dry film 60 µm)
 - dust free (ISO 9117-3:2010) after ¼ h
 - touch dry (ISO 9117-5:2012) after ½ h

Overcoatable, 50% RH (dry film 60 µm)

surface temperature	by itself and by suitable paints for galvanized zinc surfaces	
	min.	max.
+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%)	-

See sections Application conditions and Overcoating. Overcoating requires also that the paint film withstands light rubbing with a cloth wetted with solvent according to ASTM D4752 (so called MEK-test). For the rubbing test also TEKNOSOLV 9506 can be used.

Thinner	Thinning is not recommended. In exceptional circumstances use TEKNOSOLV 6060 max. 5% by volume.
Clean up	TEKNOSOLV 9506
Finish	Matt
Colours	Greenish grey
SAFETY MARKINGS	See Safety Data Sheet.

DIRECTION FOR USE**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. Thereafter the surfaces are blast-cleaned at least to preparation grade Sa 2½ (ISO 8501-1). The surface profile has to be at least medium coarse (reference piece "G") SFS - ISO 8503-2. (G).

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

KORRO SS Zinc Silicate Prefabrication Primer can be used, when required.

Mixing of the components

Take into consideration the pot life of the mixture when estimating the amount to be mixed at a time. Before painting, the silicate part is mixed into zinc dust paste 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.

Application conditions

The surface to be painted must be dry, the temperature over +5°C and the relative humidity of the air 50 - 90%. Additionally the temperature of the surface to be painted and the paint must be at least 3°C above the dew point of the ambient air.

When the relative humidity is below 80%, it is recommended that the painted surface is wetted about an hour after the application and that this is repeated for some hours at intervals of about one hour. Alternatively this artificial wetting can be arranged also by placing the objects about one hour after the painting for some hours in a space where continuous saturation humidity (condensation) can be maintained.

Application

The paint is applied by airless spray, by conventional spray equipped with a mixer, or by brush. Airless spray nozzle 0.018 - 0.021", angle of nozzle according to the workpiece to be coated, turn-nozzle is recommended.

The paint must be frequently stirred in the course of work in order to avoid sedimentation of the zinc dust. 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! Dry film thicknesses exceeding 100 µm are to avoided because the risk of cracking. Brush application easily fails to provide the recommended film thickness.

Overcoating

Make sure that TEKNOZINC SS film withstands light rubbing with a cloth wetted with MEK-solvent according to ASTM D4752 (so called MEK-test). In rubbing test TEKNOSOLV 9506 can also be used.

The paints that are intended for use on zinc surfaces can be used for overcoating in accordance with the coating system. When overcoating a fresh (porous) film of zinc silicate paint it is recommended that the top coat is first applied in a mist coat to prevent bubbles and pinholes, or separate sealer is used e.g. INERTA PRIMER 5 thinned 20 - 30 %.

ADDITIONAL INFORMATION

The storage stability is shown on the label. Store in a cool place and in tightly closed containers.

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

The information of this data sheet is normative and based on laboratory tests and practical experience. Teknos guarantees that the product quality conforms to our quality system. Teknos accepts, however, no liability for the actual application work, as this is to a great extent dependent on the conditions during handling and application. Teknos accepts no liability for any damage resulting from misapplication of the product. 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 data sheets, material safety data sheets and system sheets are on our home pages www.teknos.com.



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