TEKNOZINC SS ZINC DUST PASTE

Zinc silicate paint

TEKNOZINC SS is a two-pack zinc rich ethyl silicate paint.

Use: On structural steel exposed to weather or submerged in solvents.

After drying TEKNOZINC SS 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

Recommended substrate	Steel
Binder	Zinc silicate
Solids	52 ±2% by volume
Total mass of solids	Approx. 1700 g/l
Volatile organic compound (VOC)	Approx. 510 g/l (DIRECTIVE 2010/75/EU) 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 Technical Data Sheet.
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.
Film thickness	Maximum recommended film thickness: - wet film thickness 190 µm - dry film thickness 100 µm Thicker coats may lead to cracking.
Colours	Greenish grey
Gloss (60°)	Matt
Hardener	Comp. B: TEKNOZINC SS SILICATE PART
Mixing ratio (A:B)	7:3 parts by volume
Pot life, +23°C	4 h
Thinner	Thinning is not recommended. In exceptional circumstances use TEKNOSOLV 6060 max. 5% by volume.

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

DIRECTION FOR USE

Surface preparation	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: 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 medium (reference comparator "G"). See standard 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. Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2. Prefabrication primer: KORRO SS zinc silicate prefabrication primer can be used, when required.
Application method	Airless spraying, Conventional spraying equipped with a mixer, Brush Suitable airless nozzle size 0.018 - 0.021". Angle of nozzle according to the workpiece to be coated, turn-nozzle is recommended.

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 the paint frequently in the course of work, about every 30 minutes in order to prevent 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%.
Application conditions	The surface to be treated must be dry. Temperature must be over +5 °C and the relative humidity of the air 50 - 90%. 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. 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.

Drying time	+23°C / 50% RH (dry film 60 µm)
- dust free	15 min (ISO 9117-3:2010)
- touch dry	30 min (ISO 9117-5:2012)
Overcoatable	

	By itself* and suitable paints on galvanized zink surfaces	
surface temperature	min.	max.
+5°C	3 d (RH 90% or wetting of surfaces) or 2 weeks (RH 50%)	-
+23°C	1 d (RH over 80% or wetting of surfaces) or 2 weeks (RH 50%)	-

* Only for minor repair objects, otherwise please contact Teknos.

See sections Application conditions and Overcoating. Overcoating by products intended for galvanized zinc surfaces 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.

Cleaning	TEKNOSOLV 9506 (flammable) or TEKNOSOLV 6060 (highly flammable)

HEALTH AND SAFETY

Safety and precaution measures	See safety data sheet.

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