TEKNOPLAST HS 150

Epoxy paint

TEKNOPLAST HS 150 is a low solvent content two-pack epoxy paint.

Intended to be used as a primer and top coat in abrasion and chemical resistant epoxy coating systems and also in a maintenance system. The paint has good adhesion onto bare zinc, aluminium, thin-plate and acid-proof steel.

TEKNOPLAST HS 150 produces a thick coating that is resistant to chemicals. It is suitable on internal and external surfaces as well as on subterranean and submerged steel structures.
The paint comes up to the specifications of Swedish Standard SSG 1026-TD.
TEKNOPLAST HS 150 is used as a steam-proof coating on concrete. The water vapour permeability is determined by the Technical Research Centre of Finland (Research Report No. RAT6640).

It is well known that epoxy paints will yellow and chalk. Furthermore it must be noticed that inadequate mixing, incorrect mixing ratio, combustion gases or taking the partially cured paint outside may result in an uneven discolouration. White and light shades (e.g. RAL-9001, RAL-9003, RAL-9010 and RAL-9016) are especially susceptible for yellowing.

TEKNOPLAST WINTER HARDENER 7212 is to be used when painting at temperatures below +10 °C. Using the WINTER hardener will strengthen the yellowing and chalking that is typical for epoxy paints.

TECHNICAL DATA

Certificates, approvals and classification	SSG 1026-TD, VTT (Finland)
Recommended substrate	Steel, Aluminium, Zinc, Concrete, Clay brick
Binder	Epoxy
Solids	70 ±2% by volume (ISO 3233:1988)
Total mass of solids	Approx. 1050 g/l
Volatile organic compound (VOC)	Approx. 300 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	<table><tr><th>Dry film (µm)</th><th>Wet film (µm)</th><th>Theoretical spreading rate (m^2/l)</th></tr><tr><td>80</td><td>114</td><td>8.8</td></tr><tr><td>100</td><td>143</td><td>7.0</td></tr><tr><td>150</td><td>214</td><td>4.7</td></tr></table> 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	Same tinting system should be used during the whole painting project. Factory colours by agreement.
Tinting system	Teknomix;Teknotint
Gloss (60°)	Semi-gloss
Hardener	Comp. B: TEKNOPLAST HARDENER
Mixing ratio (A:B)	4:1 parts by volume
Pot life	+23 °C: 4 h +30 °C: 1.5 h +40 °C: 45 min
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	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). 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 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. 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. CONCRETE SURFACES: The concrete must be at least 4 weeks old, well-hardened and solid. The water content of the top layer must not exceed 4% by weight. Smooth down any spatter and irregularities on the surfaces by grinding. Brush away loose cement, sand and dust. Wash oily and greasy surfaces with detergent or solvent. Remove dense laitance if present by etching with RENSA ETCHING etching liquid or by grinding or blast-cleaning. 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. 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: KORRO E Epoxy, KORRO SE Zinc Epoxy and KORRO SS Zinc Silicate Prefabrication Primers can be used, when required.
Application method	Airless spraying
Application	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 by brush or airless spray. Use airless spray nozzle size 0,013 - 0,021". 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. During the application and drying period the temperature of the ambient air, the surface and the product shall be above +10°C and the relative air humidity below 80%. 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 using TEKNOPLAST WINTER HARDENER 7212 the temperature of the ambient air and the surface to be painted shall be over -5°C. The temperature of the paint during the mixing and application is to be above +15°C. NOTE! TEKNOPLAST HS 150 must not be used in the same paint system with TEKNOTAR 100.
Thinning	If needed, thin the paint 1 - 5 % by TEKNOSOLV 9506.
Drying time	+23°C / 50% RH (dry film 80 µm)
- dust free	30 min (ISO 9117-3:2010)
- touch dry	5 h (ISO 9117-5:2012)
- fully cured	7 d

Overcoatable

Surface temperature	By itself, for structures in ATMOSPHERIC exposure		By itself, for SUBMERGED or SUBTERRANEAN structures	
	min.	max. *	min.	max. *
+10 °C	16 h	2 months	36 h	7 d
+23 °C	5 h	1 months	16 h	7 d

* Maximum overcoating interval without roughening.

Increase in film thickness and rise in the relative humidity of the air in the drying space usually slow down the drying process.

Polyester putty is not recommended to be used on top of TEKNOPLAST HS 150 Epoxy paint.

Cleaning	TEKNOSOLV 9506 or TEKNOSOLV 9530.

HEALTH AND SAFETY

Safety and precaution measures	See safety data sheet.

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