

Technical Data Sheet

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® KORROPLAST EP 312

Crack-bridging spray coating for chemically stressed steel and concrete surfaces

Description

KORROPLAST EP 312 is a epoxy resin based coating, which is applied by means of spraying. Its two layers target a thickness of approx. 1.2 mm.

Typical uses

KORROPLAST EP 312 is recommended as a surface protection system for structural concrete or steel components in a variety of applications, particularly where crack-bridging properties of the substrate and a good chemical resistance are required.

The primary spectrum of application are coatings of ducts, pits, tanks and collecting basins in production facilities, for example in chemical industry, where water-polluting substances are stored and processed.

Properties

KORROPLAST EP 312 offers good crack-bridging properties and a broad range of chemical resistance properties. This coating system is therefore especially suited for the protection of our waters. KORROPLAST EP 312 is available in light, attractive colour tones.

Chemical resistance

Information on the chemical resistance properties will be provided on request.

Substrate

The substrate may be structural components made of either steel or concrete. All concrete components to be coated need to comply with the specifications of DIN EN 14879-1. All steel structures must meet the requirements given in DIN EN 14879-1

Surface pre-treatment

Steel surfaces shall be sandblasted to a metallic bright finish. A preparation degree of Sa 2 ½ as specified in DIN EN ISO 12944-4 and a roughness grade "medium (G)" as specified in ISO 8503-1 must be achieved; minimum surface roughness $R_z = 70 \mu\text{m}$. A primer shall be applied subsequent to sandblasting.

Concrete surfaces shall be treated by means of sandblasting - if required - to ensure that it is free of laitance, cement skin, loose or brittle particles, structural flaws and any substances that may act as separating agents. The residual moisture of the concrete surface should measure $< 4\%$.

Application

KORROPLAST EP 312 consists of a three-component Filler, optional a two-component Primer and two-component Top Coat. Permanent liquid (hydrostatic) load basically demands a trowel applied filler (KERAPOX EP 210).

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
<u>Filler (KERAPOX EP 210)</u>		
KCH EP primer 12 component A	100	2.00
KCH EP primer 12 component B	60	1.30
KCH powder 17	260	6.50
<u>Primer</u>		
KCH EP primer 12 component A	100	2.00
KCH EP primer 12 component B	60	1.30
<u>Top Coat</u>		
KORROPLAST EP 312 component A	100	4.00
KORROPLAST EP 312 component B	22.5	1.30

The coating thickness should add to approx. 1.2 mm on steel and/or concrete. If required, the layer thickness may be increased by means of applying several additional spray coats. Different colours shall be used to ensure that all areas are properly covered.

Pot life

Temperature	Filler / Primer	Top Coat
15°C	~ 60 min.	~ 80 min.
20°C	~ 45 min.	~ 60 min.
30°C	~ 20 min.	~ 25 min.

Coverage

Filler: approx. 1.9 kg/m²
 Primer: approx. 0.3 kg/m² on steel or filler
 approx. 0.4 kg/m² on concrete
 Top Coat: approx. 1.0 kg/m² (per spray coat)

Packing

The following standard quantities are available:

KCH EP Primer 12 component A	3.13, 12.5 kg
KCH EP Primer 12 component B	1.87, 7.5 kg
KCH powder 17	25 kg
KORROPLAST EP 312 component A	20.4 kg
KORROPLAST EP 312 component B	4.6 kg

Storage

The products shall be stored in a cool and dry place. With a storage temperature of 23°C the minimum shelf life is as follows:

KCH EP Primer 12 component A	12 months
KCH EP Primer 12 component B	12 months
KCH powder 17	24 months
KORROPLAST EP 312 component A	12 months
KORROPLAST EP 312 component B	12 months

Higher temperatures will shorten the shelf life of this products. The packaging drums are to be kept tightly shut and are to be resealed each time material has been removed. All liquid products must be stored frost-free.

Safety

Adequate ventilation is to be provided while work is in progress. Ventilation is compulsory for all work carried out in pits and closed rooms.

All vapours that are produced while work is in progress must be continuously suctioned off at floor or bottom level.

Only the amount of material effectively required to continue work is to be stored at the working place. The instructions for the prevention of fire and explosion are to be observed if required.

Please note and ensure that even the smallest quantities of the individual components and/or prepared mixtures are not allowed to reach the sewerage.

All regulations for the prevention of accidents stipulated by the employer's liability assurance association, the regulations for the prevention of accidents prescribed at the site of application and the TRGS 507 „Surface treatment in rooms and tanks“, as well as the safety precautions listed on the packing (label) required by the provisions of the Hazardous Materials Ordinance shall be adhered to. The operating instructions pursuant to § 14 GefStoffV as well as the EC safety data sheets are to be complied with.

Technical data	Test specification	Unit	Parameter
Density	DIN EN ISO 1183-1	g/cm ³	1.6
Tensile strength	DIN EN ISO 527	MPa	29
Crack-bridging ability	DIBt-ZG	mm	0.2
Adhesiveness to concrete/screed *)	DIN EN 24624	MPa	> inherent strength of substrate
Hardness	DIN 53505	Shore D	72
Dissipation Resistivity (to earth)	DIN EN 1081	Ω	> 10 ⁹
Coefficient of linear thermal expansion	DIN 53752	K ⁻¹	145 · 10 ⁻⁶
Maximum operating temperature		°C	70

*) compressive strength 25 MPa

The technical data contained herein represents the current state of our product knowledge and is intended to furnish general information regarding our products and their application spectrum. In view of the diversity and multitude of application possibilities, this data should be regarded solely as general information, which does not guarantee any specific properties and/or suitability of these products for each concrete case of application. Consequently, when ordering a product, please contact us for detailed information relative to the properties required for a specific application. Our technical service will, upon request, furnish a profile of characteristics for the concrete application without delay.

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