

Technical Data Sheet

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® KORROPLAST VE 310

Synthetic resin coating for steel surfaces subjected to high chemical and thermal stress

Description

KORROPLAST VE 310 is a synthetic resin coating based on vinyl ester resin containing glass flakes as barrier fillers. It is applied by means of the airless spraying. The standard layer thickness is approx. 1.2 mm. Depending on the extent of encountered stress deviations hereof may be permitted.

Typical uses

KORROPLAST VE 310 is recommended as surface protection for structural components made of steel that are subjected to attack by corrosive substances also at higher temperature ranges.

The primary spectrum of application is for conduits, chimneys and heat exchangers in the flue gas desulfurization plants of power stations as well as waste gas and/or flue gas purification systems in the chemical industry and other industrial sectors.

Properties

KORROPLAST VE 310 has exceptionally good chemical resistance properties, an excellent thermal stability and superior diffusion impermeability. The diffusion impermeability of the coating is further improved by the proportion of glass flakes (thickness 3 - 5 µm, diameter ≤ 0,4 mm). To a large extent this coating is also insensitive to thermal shock stress.

Chemical resistance

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

Substrate

All steel structures and structural components are required to comply with the specifications contained in DIN EN 14879-1.

Surface pretreatment

The steel surface shall be sandblasted to a metallic bright finish. A preparation degree of Sa 2 1/2 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.

Application

KORROPLAST VE 310 is composed of a two-component Primer and three two-component Spray Layers applied in the colour sequence grey, red, grey.

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
<u>Primer</u>		
KCH VE solution 9	100	2.00
KCH UP hardener 3	2	0.04
<u>Spray Layers</u>		
KCH VE solution 10 (grey or red)	100	2.00
KCH UP hardener 3	1.5	0.04

The Primer and the three Spray Layers are to be applied with an airless-spray gun. The total coating thickness should measure approx. 1.2 mm.

Pot life

Temperature	Primer	Spray layers
15°C	~ 30 min.	~ 60 min.
20°C	~ 25 min.	~ 45 min.
30°C	~ 12 min.	~ 20 min.

Coverage

Primer: approx. 0.3 kg/m²
 Spray Layer (grey, red): approx. 0.7 kg/m² per application

Packing

The following standard quantities are available:

KCH VE Solution 9 20 kg
 KCH VE Solution 10 20 kg
 KCH UP Hardener 3 0.3, 0.4 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 VE solution 9 3 months
 KCH VE solution 9 < 15 °C 6 months

KCH VE solution 10	3 months
KCH VE solution 10 < 15 °C	6 months
KCH UP hardener 3	6 months

Only such 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.

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 are to be stored frost-free.

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

Safety

Adequate ventilation shall be provided during the execution of all work. Ventilation is compulsory for all work carried out in pits and closed rooms.

All vapours that are produced during processing must be continuously suctioned off at floor or bottom level.

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	1.4
Tensile strength	DIN EN ISO 527	MPa	40
Elongation at tear	DIN EN ISO 527	%	0.5
E-Module (tensile test)	DIN EN ISO 527	MPa	7,000
Flexing strength	DIN EN ISO 178	MPa	60
Compressive strength	DIN EN ISO 604	MPa	80
Adhesiveness to steel	DIN EN 24624	MPa	> 5
Barcol-Hardness	DIN EN 59		> 35
Dissipation Resistivity (to ground)	DIN EN ISO 1081	Ω	> 10 ⁹
Linear thermal expansion coefficient	DIN 53752	K ⁻¹	20 · 10 ⁻⁶
Max. operational temperature		°C	200

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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شرکت کسری نماینده رسمی KCH آلمان