

Technical Data Sheet

33.06.301E – 07/06

® KERAPOX VE 220

Electrically dissipating synthetic resin smoothing coat for concrete surfaces

Description

KERAPOX VE 220 is a trowel-applied synthetic resin smoothing coat based on vinyl ester resins. The layer thickness measures approx. 1 mm.

Typical uses

KERAPOX VE 220 is applied as a smoothing coat onto concrete and screed surfaces to fill and level out sinkholes, cavities, voids and other defects; it is also utilised to form a conductive surface finish that is free from pores. This smoothing coat is applied primarily in such cases where the subsequently applied coating is required to be electrically dissipating.

KERAPOX VE 220 is also recommended for use in order to test the impermeability of non-conductive coatings by means of a spark testing apparatus. KERAPOX VE 220 is employed as a substrate for coatings based on vinyl ester resins.

Properties

KERAPOX VE 220 is characterised by its superior adhesion to the substrate and one avails its good isolation properties. The smoothing coat hardens with a minimum of shrinkage and has a low electric resistance.

Chemical resistance

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

Substrate

All concrete structures must meet the requirements given in DIN EN 14879-1.

Surface pretreatment

If required, the concrete surface must be treated by means of blasting in such a manner that it is free of cement slurries, cement skin, loose or brittle particles, defects and separating substances. The residual moisture of the concrete surface must be < 4%.

Application

KERAPOX VE 220 is composed of a two-component Primer and a three-component electrically dissipating Smoothing Coat.

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
<u>Primer</u>		
KCH VE solution 8	100	2.00
KCH UP hardener 1	2	0.04
<u>Smoothing Coat</u>		
KCH VE paste 4L	100	2.00
KCH UP hardener 1	2	0.04
KCH powder 51	150	2.20

Spread Primer on the substrate by means of a roller. Distribute Smoothing Coat evenly onto the hardened primer utilising a smoothing tool. Install carbon cords or copper bands in order to provide a connection to ground potential.

Pot life

Temperature	Primer	KERAPOX VE 220
15°C	~ 40 min.	~ 40 min.
20°C	~ 30 min.	~ 30 min.
30°C	~ 13 min.	~ 13 min.

Coverage

Primer: approx. 0.3 kg/m²
Smoothing Coat: approx. 1.7 kg/m² per mm thickness

Packing

The following standard quantities are available:

KCH VE solution 8	20 kg
KCH VE paste 4L	20 kg
KCH UP hardener 1	0,4 kg
KCH powder 51	25 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 8	3 months
KCH VE solution 8 < 15 °C	6 months
KCH VE paste 4L	3 months
KCH VE paste 4L < 15 °C	6 months
KCH UP hardener 1	6 months
KCH powder 51	24 months

Carbon cords 24 months
Copper bands 24 months

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 must be stored frost-free.

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.

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.

Technical data	Test specification	Unit	Parameter
Density	DIN EN ISO 1183-1	g/cm ³	1.7
Compressive strength	DIN EN ISO 604	MPa	110
Tensile strength	DIN EN ISO 527	MPa	25
Elongation at tear	DIN EN ISO 527	%	0.5
Flexural strength	DIN EN ISO 178	MPa	45
Modulus of elasticity (bending)	DIN EN ISO 178	MPa	6,000
Adhesive strength to concrete/screed ^{*)}	DIN EN 24624	MPa	> inherent strength of substrate
Hardness	DIN 53505	Shore D	90
Dissipating Resistivity (to earth)	DIN EN ISO 1081	Ω	< 10 ⁶
Coefficient of linear thermal expansion	DIN 53752	K ⁻¹	40 · 10 ⁻⁶
Max. operating temperature		°C	100

^{*)} 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.

KCH GROUP GmbH

P.O. Box 11 63, D-56425 Siershahn

Phone: +49 (0) 2623-600-0 / Fax: +49 (0) 2623-600-433 / eMail: info@kch-group.com