

Technical Data Sheet

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® KERAPOX EP 221

Electrically dissipating smoothing synthetic resin based coat for concrete substrates

Description

KERAPOX EP 221 is a smooth applicable coat based on nonylphenol- and silicone-free synthetic resins. The layer thickness ranges between 1 and 2 mm for two-dimensional application.

Typical uses

KERAPOX EP 221 is applied as smoothing coat to concrete and screed substrates to fill cavities, gravel pockets, holes and other imperfections and to create a conductive surface free of pores. The smoothing coat is predominantly used where the subsequent coating needs to be carried out electrically dissipating.

KERAPOX EP 221 is further used to allow non-conductive coatings to be tested on tightness by means of a spark tester. KERAPOX EP 221 serves as substrate for a multitude of corrosion protection systems.

Properties

KERAPOX EP 221 adheres extremely well to the substrate and one avails of its good isolating properties. The smoothing coat hardens almost shrink-free and has a low electrical resistance.

Chemical resistance

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

Substrate

Concrete structures shall meet the requirements of DIN EN 14879-1.

Surface pre-treatment

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 EP 221 consists of a three-component layer.

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
KCH EP solution 1	100	2.00
KCH EP hardener 4	67	1.50
KCH EP powder 1L	500	9.40

Fill major cavities and holes with the compound, then spread the compound onto the substrate using a smoothing tool. Lay carbon cords or copper strips to connect the smoothing coat to the earth potential.

Pot life

Temperature	KERAPOX EP 221
15°C	~ 45 min.
20°C	~ 35 min.
30°C	~ 15 min.

Coverage

approx. 1.8 kg/m² per mm thickness

Packing

The following standard quantities are available:

KCH EP solution 1	20 kg
KCH EP hardener 4	5, 20 kg
KCH EP powder 1L	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 EP solution 1	12 months
KCH EP hardener 4	12 months
KCH EP powder 1L	24 months
Carbon cords	24 months
Copper strips	24 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	1.8
Compressive strength	DIN EN ISO 604	MPa	70
Tensile strength	DIN EN ISO 527	MPa	14
Elongation at tear	DIN EN ISO 527	%	1.5
Flexural strength	DIN EN ISO 178	MPa	40
Modulus of elasticity (bending)	DIN EN ISO 178	MPa	3,100
Adhesive strength to concrete/screed*)	DIN EN 24624	MPa	> inherent strength of substrate
Hardness	DIN 53505	Shore D	80
Dissipation Resistivity (to earth)	DIN EN ISO 1081	Ω	< 10 ⁶
Coefficient of linear thermal expansion	DIN 53752	K ⁻¹	70 · 10 ⁻⁶
Maximum operating temperature		°C	80

*) 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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شرکت کسری نماینده رسمی KCH آلمان