

Technical Data Sheet

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® KERAPLAN EP 421 TX

Two-component epoxy resin texture coating system with electrical conductivity

Description

KERAPLAN EP 421 TX is an electrically discharging, slip-resistant, pigmented, solvent-free, nonylphenol- and silicone-free thin film coating based on epoxy resins. The coating is electrically discharging in accordance with DIN EN ISO 1081.

Solvent free in acc. with **ibh** – recommendation

Typical use

KERAPLAN EP 421 TX is recommended as a surface protection system for concrete and screed surfaces in a variety of applications, particularly in such cases where the surface and overall visual appearance must meet very exacting standards. This product is primarily applied as a floor coating in chemical process plants, warehouses, production halls and workshops.

On account of its electrical discharge ability, this product is recommended for use in all areas in which sparking must be avoided because of potential explosions hazards.

Properties

KERAPLAN EP 421 TX is a floor coating that is fit for traffic, can be exposed to mechanical loads and has a broad spectrum of chemical resistance properties. The coating hardens without shrinkage and may be applied without seams.

KERAPLAN EP 421 TX is available in a broad range of colours.

- Slip-resistant (DIN 51 130) R10

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 way that it is free from cement slurries, cement skin, loose and brittle particles, defects and separating substances. The residual moisture of the concrete surface should measure <4%.

Application

KERAPLAN EP 421 TX is packaged and shipped in pre-measured units.

KERAPLAN EP 421 TX is composed of a conductive, two-component, aqueous primer and a conductive, two-component top coat.

Mixing ratios	Packing size (kg)	Parts by weight (kg)
<u>KCH EW Primer 1</u>		
Component A	5	100
Component B	1.25	25
Water		25
<u>KERAPLAN EP 421 TX</u>		
Component A	20	100
Component B	4	20

For the primer coat, approx. 20% in weight of water is subsequently added to the mixed KCH EW Primer 1 components.

When used as a primer, the compound is applied with a roller, brush or rubber squeegee. Special care should be taken to avoid puddles/sagging, to ensure that all voids are filled and that a solid surface is achieved.

Apply the KERAPLAN EP 421 TX compound thinly to the substrate (max. 0.3 mm) using a smoothing tool and then roll out using a texture roller (e.g. Moltopren 8018 G).

Pot life

Temp.	Primer	Top coat
15°C	approx. 35 minutes	approx. 40 minutes
20°C	approx. 25 minutes	approx. 30 minutes
30°C	approx. 15 minutes	approx. 20 minutes

Coverage

Primer: approx. 0.3 kg/m² (compound)
Top coat: approx. 0.55 kg/m² (compound)

Packing

The following standard quantities are available:

KCH EW Primer 1 Comp. A	5 kg
KCH EW Primer 1 Comp. B	1.25 kg
KERAPLAN EP 421 TX Comp. A	20 kg
KERAPLAN EP 421 TX Comp. B	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 EW Primer 1 Comp. A	12 months
KCH EW Primer 1 Comp. B	12 months
KERAPLAN EP 421 TX Comp. A	12 months
KERAPLAN EP 421 TX Comp. 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	1.49
Compressive strength	DIN EN ISO 604	MPa	65
Tensile strength	DIN EN ISO 527	MPa	31
Elongation at break	DIN EN ISO 527	%	2
Flexural strength	DIN EN ISO 178	MPa	36
Modulus of elasticity (flexural test)	DIN EN ISO 178	MPa	3.800
Adhesive strength to concrete/screed ^{*)}	DIN EN ISO 4624	MPa	> inherent strength substrate
Hardness	DIN 53505	Shore D	70
Leakage resistance to earth	DIN EN ISO 1081	Ω	< 10 ⁶
Coefficient of linear thermal expansion	DIN 53752	K ⁻¹	65 · 10 ⁻⁶
Maximum service 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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