

## Technical Data Sheet

33.06.605E – 07/06

### ® KERAPLAN EP 230

#### Synthetic resin coating withstanding severe mechanical stress to protect concrete areas

##### Description

KERAPLAN EP 230 is a jointless trowel-applicable, solvent free, nonylphenol- and silicone-free synthetic coating material based on epoxy resin with mineral fillers. Depending on the requirement, the layer thickness may vary between 4 and 7 mm.

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

##### Typical uses

KERAPLAN EP 230 is used to protect concrete and screed surfaces for versatile purposes, especially where high demand to the mechanical resistance of a flooring is required. KERAPLAN EP 230 is predominantly used as flooring material in chemical factories, power plants, warehouses and factory buildings, workshops, loading stations, reloading areas and traffic areas.

##### Properties

KERAPLAN EP 230 is a flooring material that can be exposed to traffic and withstands severe mechanical stress. It is resistant to a wide range of chemicals, in particular aggressive alkaline media and brines. The coating hardens without shrinking and can be applied jointless. KERAPLAN EP 230 is available in various colours.

##### Chemical resistance

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

##### Substrate

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

##### Surface pretreatment

If required the concrete substrate 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 shall be < 4 %.

##### Application

KERAPLAN EP 230 consists of a two-component Primer, a four-component Top Coat and a two-component Sealing.

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
<u>Primer</u>		
KCH EP solution 2	100	2.00
KCH EP hardener 6	60	1.30
<u>Top Coat</u>		
KCH EP solution 6 RAL	100	2.00
KCH EP hardener 6	50	1.10
KCH powder 51	200	3.20
KCH powder 2	600	9.00
<u>Sealing</u>		
KCH EP solution 7 RAL	100	2.00
KCH EP hardener 6	40	1.00

Spread the primer onto the substrate using a roller and sand it off with KCH powder 5. Pour the Top Coat compound onto the hardened primer, spread it evenly and smooth it using a smoothing tool. The thickness of the filler layer shall be at least 4 mm. Distribute a thin layer of the Sealing onto the hardened Top Coat and roll it down.

##### Pot life

Temperature	Primer	Top Coat / Sealing
15°C	~ 45 min.	~ 60 min.
20°C	~ 30 min.	~ 45 min.
30°C	~ 20 min.	~ 20 min.

##### Coverage

Primer: approx. 0.4 kg/m<sup>2</sup>  
 approx. 1.0 kg/m<sup>2</sup> KCH powder 5  
 Filler Layer: approx. 2.15 kg/m<sup>2</sup> per mm thickness  
 Top Coat: approx. 0.25 kg/m<sup>2</sup> per application

**Packing**

The following standard quantities are available:

KCH EP solution 2	5, 20 kg
KCH EP solution 6 RAL	20 kg
KCH EP hardener 6	5, 20 kg
KCH powder 51	25 kg
KCH EP solution 7 RAL	20 kg
KCH powder 2	50 kg
KCH powder 5	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 2	12 months
KCH EP solution 6 RAL	12 months
KCH EP hardener 6	12 months
KCH powder 51	24 months
KCH EP solution 7 RAL	12 months
KCH powder 2	24 months
KCH powder 5	24 months

Higher temperatures will shorten the shelf life of this products. 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 <sup>3</sup>	2.0
Compressive strength	DIN EN ISO 604	MPa	75
Tensile strength	DIN EN ISO 527	MPa	18
Elongation at tear	DIN EN ISO 527	%	1.0
Flexural strength	DIN EN ISO 178	MPa	28
Modulus of elasticity (bending)	DIN EN ISO 178	MPa	4,500
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 <sup>9</sup>
Coefficient of linear thermal expansion	DIN 53752	K <sup>-1</sup>	50 · 10 <sup>-6</sup>
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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