

Technical Data Sheet

33.06.603E – 07/06

® KERAPLAN EP 110

Self-spreading synthetic resin coating for the protection of concrete areas

Description

KERAPLAN EP 110 is a jointless, self-spreading, solvent free, nonylphenol- and silicone-free synthetic resin coating based on epoxy resin and containing mineral fillers. Depending on individual requirements, the thickness of the applied layer may measure between 2 and 4 mm.

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

Typical uses

KERAPLAN EP 110 is recommended to protect concrete and screed surfaces within a variety of applications, particularly where surface and visual attractiveness shall meet higher demand.

Its primary spectrum of application is for floor coverings in chemical factories, storage and workshop halls, shops, power stations, breweries, plants of the foodstuff industry, dairies, EDP-facilities or clean rooms for the electronics industry.

Properties

KERAPLAN EP 110 is a floor covering that is fit for traffic and resistant to mechanical loads and which also offers a broad chemical resistance. The coating hardens with almost no shrinkage and may be applied without joints.

KERAPLAN EP 110 is available in a wide range of colours. Thanks to its dense, unstructured surface, the finish is very easy to clean.

Chemical resistance

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

Substrate

All concrete structures and structural components must meet the requirements specified in DIN EN 14879-1.

Surface pretreatment

If required, the concrete surface shall be treated by means of abrasive blasting to ensure that it is free of laitance, cement skin, loose or brittle particles, structural flaws and any substances that may act as separating agents.

The residual moisture of the concrete surface should measure < 4%.

Application

KERAPLAN EP 110 consists of a two-component Primer and a three-component self-spreading Top Coat.

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	300	5.00

Spread the primer onto the substrate with the aid of a roller. Pour the Top Coat compound over the hardened primer and distribute it evenly with the aid of a finishing trowel. Then carefully deaerate the layer utilising a spiked roller. The thickness of the Top Coat should measure approx. 3 mm.

Pot life

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

Coverage

Primer: approx. 0.4 kg/m²
Top Coat: approx. 1.9 kg/m² per mm thickness

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

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

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 ³	1.9
Compressive strength	DIN EN ISO 604	MPa	65
Tensile strength	DIN EN ISO 527	MPa	20
Elongation at tear	DIN EN ISO 527	%	3.2
Flexural strength	DIN EN ISO 178	MPa	25
E-module (flexural test)	DIN EN ISO 178	MPa	3,000
Adhesiveness to concrete/screed ^{*)}	DIN EN 24624	MPa	> inherent strength substrate
Hardness	DIN 53505	Shore D	80
Dissipation Resistivity (to ground)	DIN EN ISO 1081	Ω	> 10 ⁹
Linear thermal expansion coefficient	DIN 53752	K ⁻¹	70 · 10 ⁻⁶
Max. operational 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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