

## Technical Data Sheet

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### ® KERACID ES 110

#### Crack-bridging, self-spreading sealing system for concrete surfaces

##### Description

KERACID ES 110 is a jointless, self-spreading synthetic resin coating based on epoxy resins with mineral fillers. The coating is approx. 2 - 3 mm thick.

##### Typical uses

KERACID ES 110 is recommended as a multi-functional sealing system for concrete and screed surfaces, particularly where the substrate requires crack-bridging properties.

Its primary application spectrum is the coating of storage rooms, production facilities, collecting basins. Usually such plants are operated in the chemical industry or other industrial branches.

KERACID ES 110 is also highly suitable as a crack-bridging layer underneath synthetic resin coatings and ceramic coverings.

##### Properties

KERACID ES 110 is characterised by its crack-bridging properties as well as its excellent resistance to acids (e.g. concentrated hydrochloric acid, chromic acid 25%), caustic and salt solutions, fats and oils. The coating hardens without shrinkage and can be applied without joints. KERACID ES 110 is offered in light colour shades.

##### Chemical resistance

Further information on the chemical resistance properties are available on request.

##### Substrate

Concrete structures and structural components must comply with the specifications given in DIN EN 14879-1.

##### Surface pre-treatment

If required, the concrete surface must be treated by means of 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

KERACID ES 110 is composed of a two-component primer and a two-component self-spreading covering layer. For application on wall surfaces a trowel-applied Top Coat is used. All materials required for Primer and Top Coat are delivered in adjusted bins.

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 (Floor)</u>		
KCH ES solution 1	100	22 (Hobbock 25 kg)
KCH EP hardener 7	7	1,63 (Box 1,75 kg)
<u>Top Coat (Wall)</u>		
KCH ES paste 1	100	22 (Hobbock 25 kg)
KCH EP hardener 7	7	1,63 (Box 1,75 kg)

The primer is spread onto the substrate with the aid of a roller. The Top Coat is then poured onto the hardened primer and spread evenly by means of a smoothing tool or wiping blade. This procedure is followed by careful aeration utilising a spiked roller. The Top Coat for the wall surfaces is spread by means of a smoothing tool. The thickness of the covering layer should measure approx. 2.5 mm.

For smaller wall surfaces, KCH ES Solution 1 with the addition of approx. 1,5% KCH thixotropic agent 2 may be utilised instead of the KCH ES Paste 1.

##### Pot life

Temperature	Primer	Top Coat
15 °C	~ 45 min.	~ 50 min.
20 °C	~ 30 min.	~ 40 min.
30 °C	~ 20 min.	~ 15 min.

**Coverage**

Primer: approx. 0.4 kg/m<sup>2</sup>  
 Top Coat: approx. 1.6 kg/m<sup>2</sup> per mm thickness

**Packing**

The following standard quantities are available:

KCH EP solution 2	4, 5, 20 kg
KCH EP hardener 6	3, 4, 5, 20 kg
KCH ES solution 1	25 kg
KCH ES paste 1	25 kg
KCH EP hardener 7	1.75 kg
KCH thixotropic agent 2	1 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 hardener 6	12 months
KCH ES solution 1	12 months
KCH ES paste 1	12 months
KCH EP hardener 7	12 months
KCH thixotropic agent 2	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>	1.6
Tensile strength	DIN EN ISO 527	MPa	2
Elongation at tear	DIN EN ISO 527	%	30
Crack-bridging	DIBt-ZG	mm	0.4
Adhesiveness to concrete/screed <sup>*)</sup>	DIN EN 24624	MPa	> 1.5
Hardness	DIN 53505	Shore D	50
Dissipation Resistivity (to ground)	DIN EN ISO 1081	Ω	> 10 <sup>9</sup>
Linear thermal expansion coefficient	DIN 53752	K <sup>-1</sup>	95 · 10 <sup>-6</sup>
Maximum operational temperature		°C	60

<sup>\*)</sup> 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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