

# Technical Data Sheet

33.06.711E – 10/06

## ® KERACID EP 122

**Crack-bridging, electrically dissipating sealing system for concrete surfaces exposed to chemical stress**

**General construction regulation approval no. Z-59.12-179**

### Description

KERACID EP 122 is a jointless, self-spreading synthetic resin coating based on epoxy resin with mineral fillers. Complying with the specifications of DIN EN 1081 as well as the directive "Static Electricity" ZH 1/200 issued by the General Council of the Industrial Trade Association this coating is able to dissipate electrostatic load. The layer thickness measures approx. 2 mm.

### Typical uses

KERACID EP 122 is recommended as a sealing system for floor and wall surfaces in a wide variety of applications, particularly in such cases where crack-bridging properties of the substrate and a good chemical resistance are required.

The primary application spectrum are coatings of storerooms, warehouses, collecting basins, dissipating areas, and production facilities where water-polluting substances are stored and processed. KERACID EP 122 is applied in various industrial branches, especially when approved and certified coating systems are required.

In view of its dissipation ability for electrostatic load the application of KERACID EP 122 is also highly recommended for all areas where sparking due to potential risk of explosion needs to be avoided.

### Properties

KERACID EP 122 offers good crack-bridging properties and a broad range of chemical resistance properties. This coating system is therefore especially suited for the protection of our waters.

KERACID EP 122 can be exposed to traffic and is available in light, attractive colour tones. The coating is to dissipate electrostatic charges and is therefore particularly suitable for all areas that are temporarily subjected to combustible liquids, for example to solvents.

### Chemical resistance

Stress level "high" according ZG of the DIBt		
1.	Fuels according DIN 51600 and DIN EN 228	•
2.	Aviation fuels	•

Stress level "high" according ZG of the DIBt		
3.	Fuel oil EL according DIN 51603-1 and diesel oil according DIN EN 590, unused engine oils and unused automobile gear oils as well as mixtures of saturated and aromatic hydrocarbons containing ≤ 20% vol. aromatic compounds and having a flash-point of > 55°C	•
4.	All hydrocarbons incl. 2 and 3 except 4a and 4b as well as used engine oils and used automobile gear oils	•
4a.	Benzene and mixtures containing benzene (incl. 2-4b)	•
4b.	Raw oils	•
4c.	Used combustion-engine oils and used motor vehicle gear oils with a flash-point of >55 °C	•
5.	All alcohols and glycolethers	•
5a.5b		•
6. 6b.	Halogenated hydrocarbons (≥ C2)	•
7. 7a.	All esters and ketones	•
8.	Aqueous solutions of aliphatic aldehydes up to 40%	•
9.9a.	Aqueous solutions of organic acids (carbon acids except formic acid >10%) as well as their salts (in aqueous solution)	•
10.	Mineral acids up to 20% as well as acid-hydrolysing, inorganic salts in aqueous solution (pH < 6), except hydrofluoric acid and oxidising acids and their salts	•
11.	Inorganic lyes as well as aqueous solutions (pH > 8) of alkaline-hydrolysing inorganic salts, except ammonia solutions and oxidising (salt) solutions (e.g. hypochlorite)	•
12.	Aqueous solutions of inorganic, non-oxidising salts of a pH-value ranging between 6 and 8	•
13.	Amines and their salts (in aqueous solution)	•
14.	Aqueous solutions of organic surfactants	•
15a.	Acyclic ether	•

Additional tests		
	Ammonia ≤ 35%	•
	Chromic acid ≤ 50%	•
	Hydrofluoric acid ≤ 50%	•
	Sodium hypochlorite solution (active chlorine ≤ 13%)	•
	Nitric acid ≤ 20%	•
	Hydrochloric acid ≤ 37%	•
	Sulfuric acid ≤ 70%	•

Stress level "medium" according ZG of the DIBt		
8a.	Aliphatic aldehydes and their aqueous solutions	•
	Acrylonitrile (chemical load up to 7 days)	•

Further information on the chemical resistance properties are available 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**

KERACID EP 122 is composed of a two-component, electrically dissipating Primer, and a two-component, self-spreading, electrically dissipating Top Coat. 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>KCH EP primer 9</u> component A	100	2.00
component B	20	0.50
<u>KERACID EP 122</u> <u>(Floor)</u> component A	100	4.00
component B	20.5	1.35
<u>KERACID EP 122</u> <u>(Wall)</u> component A	100	4.00
component B	20.5	1.35
KCH thixotropic agent 1	2.5	3.20

Install copper strips to provide a connection to the earth potential. Spread the Primer onto the substrate. Pour the Top Coat compound onto the hardened Primer, and spread it using a smoothing tool. Then deaerate the compound thoroughly with a spiked roller. Apply the Top Coat compound onto the wall surfaces using a smoothing tool. The thickness of the Top Coat should measure at least 1.5 mm. Dissipation ability will be influenced negatively if the layer thickness exceeds 2 mm.

**Pot life**

Temperature	Primer	Top Coat
15°C	~ 60 min.	~ 80 min.
20°C	~ 45 min.	~ 60 min.
30°C	~ 20 min.	~ 25 min.

**Consumption**

Primer approx. 0.3 kg/m<sup>2</sup>  
Top Coat (1.5 mm) approx. 2.5 kg/m<sup>2</sup>

**Packing**

The following standard quantities are available:

KCH EP primer 9 component A	17.9 / 7.0 / 4.06 kg
KCH EP primer 9 component B	3.6 / 1.4 / 0.82 kg
KERACID EP 122 component A	21.6 kg
KERACID EP 122 component B	4.4 kg
KCH thixotropic agent 1	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 primer 9 component A	12 months
KCH EP primer 9 component B	12 months
KERACID EP 122 component A	12 months
KERACID EP 122 component B	12 months
KCH thixotropic agent 1	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 <sup>3</sup>	1.6
Tensile strength	DIN EN ISO 527	MPa	31
Crack-bridging ability	DIBt-ZG	mm	0.5
Adhesive strength to concrete/ screed <sup>*)</sup>	DIN EN 24624	MPa	> inherent strength of substrate
Hardness	DIN 53505	Shore D	75
Dissipation Resistivity (to earth)	DIN EN ISO 1081	Ω	< 10 <sup>6</sup>
Coefficient of linear thermal Expansion	DIN 53752	K <sup>-1</sup>	106 · 10 <sup>-6</sup>
Max. operating temperature		°C	80

<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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