Technical Data Sheet

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® KERAPLAN EW 120

Electrically discharging, self-spreading synthetic resin coating for the protection of concrete areas

Description
KERAPLAN EW 120 is a jointless, self-spreading synthetic resin coating based on aqueous epoxy resin with mineral fillers. The coating is electrically discharging in accordance with DIN EN 1081 as well as with the recommendations contained in "Static Electricity" ZH 1/200 published by the Main Council of the Industrial Employers' Liability Insurance Association. Depending on the requirements, the system may be executed in a layer thickness of 1 to 2 mm.

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

Typical uses
KERAPLAN EW 120 is recommended as a surface protection system for concrete and screed surfaces in a variety of applications.
Because of its excellent water vapour permeability it is also suitable for the sealing and coating of magnesite as well as anhydrite floors. This system is suitable for use in private, industrial and commercial sectors such as workshops and warehouses, services areas, exhibition halls, depots as well as data processing rooms or clean rooms in the electronic industry for example, wherever electric derivation ability is required.

Properties
KERAPLAN EW 120 is a floor coating with average chemical resistance properties that is fit for traffic and that may be exposed to mechanical stress. The coating hardens with very little shrinkage, has a satin flat surface finish and may be applied without joints. The surface may be cleaned with a hot water jet at temperatures of up to + 80 °C.
A particularly noteworthy feature of KERAPLAN EW 120 is that it can be applied in all areas where conventional systems containing solvents may not be utilized in view of the potential resultant hazards. There is no odour nuisance to be expected, consequently the coating works may also be carried out during normal work proceedings. Substrates that have been newly poured with concrete may be coated with KERAPLAN EW 110 following an overcoat interval of 7 days.

- FDA-Approval (Institut Fresenius)

Chemical resistance
KERAPLAN EW 110 is resistant to diluted acids and alkaline solutions, oils and fats, hot water, aqueous salt solutions and various organic solvents.
Additional chemical resistance data are available upon request.

Substrate
The concrete structural components shall comply with the specifications contained in DIN EN 14879-1. The substrate must be pre-moistened at temperatures > +20 °C.

Surface pre-treatment
If required, concrete surfaces must be prepared by abrasive blasting or other suitable mechanical methods to remove cement slurries, cement skin, loose or brittle particles, defects and parting compounds.
Succeeding concrete, the coating shall be applied after an interval time of 7 days at the earliest.

Application
KERAPLAN EW 120 is composed of a three-component primer and a two-component, self-spreading top coat. The materials for the primer and the top coat are supplied in co-ordinated packing drums.
Direct sunshine and draught must be avoided during application works.

Mixing ratios KERAPLAN EW 120	Packing size (kg)	Parts by weight (kg)	Parts by volume (l)
KCH-EW-Primer 1			
Component A	5.00	100	2.00
Component B	1.25	25	0.49
Water		25	0.58
KERAPLAN EW 120			
Component A	22.00	100	2.00
Component B	2.90	13	0.40

KCH-EW-Primer 1:
Add component B to component A and mix thoroughly until the compound reaches a homogenous consistency. Then add tap water to homogenize and apply with a roller. The primer must form a uniform, smooth film.

KERAPLAN EW 120:
Add component B to the component A of the KERAPLAN EW 120 system and mix thoroughly until the compound reaches a homogenous consistency. Pour the topcoat mixture over the hardened primer and apply the mixture using a spreader, a toothed spattle or doctor blade. After 10 minutes carefully aerate the surface with a spiked roller. The thickness of the top coat should measure 1 - 2 mm.

Pot life

Temperature	KERAPLAN EW 120 – coating materials
15°C	~ 35 min.
20°C	~ 25 min.
30°C	~ 15 min.

Coverage
Primer: approx. 0.3 kg/m²
Top coat: approx. 1.6 kg/m² per mm thickness

Packing
The following standard quantities are available:

KERAPLAN EW 120 Comp. A	22.00 kg
KERAPLAN EW 120 Comp. B	2.90 kg
KCH EW Primer 1 Comp. A	5.00 kg
KCH EW Primer 1 Comp. B	1.25 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:

KERAPLAN EW 120 Comp. A	12 months
KERAPLAN EW 120 Comp. B	12 months
KCH EW Primer 1 Comp. A	12 months
KCH EW Primer 1 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/cm³	1,6
Colour - top coat			Various colours
Compressive strength	DIN EN ISO 604	MPa	50
Adhesive strength at concrete/screed *)	DIN EN 26462	MPa	> inherent strength of substrate
Hardness	DIN 53505	Shore D	80
Abrasion resistance	ASTM D 1044	mg/1000 U	130
Leakage resistance to earth	DIN EN ISO 1081	Ohm	$< 10^6$
Coefficient of linear thermal expansion	DIN 53752	K^{-1}	$20 \cdot 10^{-6}$
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.

KCH GROUP GmbH
P.O. Box 11 63, D-56425 Siershahn
Phone: +49 (0) 2623-600-0 / Fax: +49 (0) 2623-600-433 / eMail: info@kch-group.com