

## Technical Data Sheet

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### ® KERAKRET EP 235

**Synthetic resin coating for the protection of concrete surfaces that is highly resistant to mechanical abuse and that can be machine-finished**

#### Description

Kerakret EP 235 is a seamless synthetic resin coating based on resin with modified mineral fillers that is highly resistant to mechanical stress and designed for fast application. Depending on actual requirements, the applied thickness may range between 6 and 20 mm. A variety of colored quartz mixtures can be utilized for applications involving decorative synthetic resin floor toppings.

Solvent free according **ibh** - recommendation

#### Typical uses

Kerakret EP 235 is suited for use as surface protection for concrete and screed surfaces for versatile purposes, particularly when a high mechanical stability under load is required.

It is predominantly used as a floor topping in pharmaceutical and chemical plants, breweries, food and beverage plants, dairies, data processing centers or clean rooms for the electronics industry.

#### Properties

Kerakret EP 235 is floor coating that is fit for traffic, highly resistant to mechanical loads and offers a broad range of chemical resistance properties. The coating can be applied easily and quickly without additional joints. The extremely dense surface finish serves to prevent impurities from penetrating into the coating. Supplementary sealing coats are utilized for applications in the pharmaceutical industry or clean rooms to improve the surface finish.

Kerakret EP 235 is very easy to clean. The dense surface finish of the coating, its ability to resist soiling and its ease of care prevent the growth of microorganisms. In addition to its natural colour formulation, very aesthetically appealing floorings can be achieved by blending in various color quartz mixtures.

- Slip-resistant (DIN 51 130) R10
- Liquid-tight (Polymer Institute)
- FDA-Approval (Institut Fresenius)
- Flammability class B1 / hardly combustible

#### Chemical resistance

Information on the chemical resistance will be provided upon request.

#### Substrate

Concrete structures must satisfy the requirements given in 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 %. The substrate shall offer a proper flatness.

#### Application

Kerakret EP 235 consists of a two-component primer, a three-component body coat.

Additional it is the possible to apply a two-component sealing and a two-component matt top varnish.

Mixing ratios	Parts by weight (kg)	Parts by volume (l)
<u>KCH EP Primer 12</u>		
component A	100	2.00
component B	60	1.31
<u>KERAKRET EP 235, colourless</u>		
component A	5.6	
component B	3.1	
powder K4	2 x18	
powder K3	24	
<u>KERAKRET EP 235, RAL</u>		
component A	6.0	
component B	3.1	
Powder K 2	60	
<u>Sealing Layer, colourless</u>		
KERAKRET EP 235	100	2.00
comp. A		
KERAKRET EP 235	55	1.20
comp. B		

Mixing ratios	Parts by weight (kg)	Parts by vol. (l)
<u>KERAKRET Sealing Layer, RAL</u>		
EP 235 comp. A	100	2.00
EP 235 comp. B	52	1.10
<u>KERAPLAN PU 411 (mat)</u>		
component A	7	1.00
component B	1.43	0.19

Spread the primer onto the substrate using a roller and strew a small amount of Powder K 2 over it.

Apply the body coat with a floorsliding-vehicle onto the hardened primer and compress / level it with a power trowel smoothing tool.

#### Optional:

For a very smooth surface spread one layer of sealing onto the hardened body coat.

To realise a matt appearance apply a second top coat (matt top vanish by using a roller.

#### Pot life

Temp.	Primer	Body Coat	Top varnish
15°C	~ 60 min.	~ 60 min.	
20°C	~ 40 min.	~ 40 min.	~ 3 hour
30°C	~ 20 min.	~ 20 min.	

#### Coverage

Primer: approx. 0.4 kg/m<sup>2</sup>, 0.8 kg/m<sup>2</sup> Powder K 2

Body Coat (per 1 mm of thickness): appr. 2.0 kg/m<sup>2</sup>

Sealing Layer (optional, single): approx. 0.4 kg/m<sup>2</sup>

Top Varnish: approx. 0.1 kg/m<sup>2</sup>

#### Packing

The following standard quantities are available:

KCH EP primer 12 component A	12.5 / 3.13 kg
KCH EP primer 12 component B	7.5 / 1.87 kg
KERAKRET EP 235 comp. A, colourless	5.60 kg
KERAKRET EP 235 comp. A, RAL	6.00 kg
KERAKRET EP 235 component B	3.10 kg
KERAPLAN PU 411 comp. A	7 kg
KERAPLAN PU 411 comp. B	1.43 kg
Powder K 2	20 kg
Powder K 3	24 kg
Powder K 4	18 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 12 component A	12 months
KCH EP primer 12 component B	12 months
KERAKRET EP 235 comp. A, colourless	12 months
KERAKRET EP 235 comp. A, RAL	12 months
KERAKRET EP 235 component B	12 months
KERAPLAN PU 411 comp. A	6 months
KERAPLAN PU 411 comp. B	6 months
Powder K2	24 months
Powder K3	24 months
Powder K4	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>	2.0
Compressive strength	DIN EN ISO 604	MPa	80
Tensile strength	DIN EN ISO 527	MPa	17
Flexural strength	DIN EN ISO 178	MPa	30
Modulus of elasticity (tensile)	DIN EN ISO 527	MPa	10,500
Adhesive strength to concrete/screed*)	DIN EN 24624	MPa	> inherent strength of substrate
Hardness	DIN 53505	Shore D	88
Dissipation Resistivity (to earth)	DIN EN ISO 1081	$\Omega$	$> 10^9$
Coefficient of linear thermal expansion	DIN 53752	K <sup>-1</sup>	$50 \times 10^{-6}$
Max. 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