KLB KÖTZTAL
Lacke + Beschichtungen GmbH

KLB-SYSTEM EPOXID
EP 285 CR

Pigmented, high-quality and chemically resistant 2-component epoxy resin coating

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK1224-50	Bucket combo	10.00	30
AK1224-30	Hobbock combo	30.00	12

Product characteristics

Mixing ratio parts by weight	A : B = 4 : 1
Mixing ratio parts by volume	A : B = 100 : 41
Processing time	10 °C / 50 °F : 40 min. 20 °C / 68 °F : 20 min. 30 °C / 86 °F : 10 min.
Processing temperature	Minimum 10 °C / 50 °F – Maximum 30 °C / 86 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 24 - 36 hrs. 20 °C / 68 °F : 14 - 18 hrs. 30 °C / 86 °F : 10 - 14 hrs.
Curing	2 - 3 days for mechanical load at 20 °C / 68 °F 7 days for chemical resistance at 20 °C / 68 °F
Further coatings	After 14 - 18 hours, but not longer than 48 hours at 20 °C / 68 °F
Consumption	Approx. 2.5 - 4.0 kg/m²
Layer thickness	1.5 - 2.5 mm
Addition of quartz sand	Not recommended
Colours	KLB-Standard Colours – see chart. Other colours upon request!
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 285 CR is a 2-component epoxy resin self-levelling coating with increased chemical resistance.

The cured coating is suitable for commercially and industrially used areas with an increased demand to chemical resistance. Application is suitable for many industrially and commercially used areas where the focus is on the resistance of the coating.

KLB-SYSTEM EPOXID EP 285 CR offers good resistance to chemicals, like alkalis, oil, grease, water, saline solutions, and different acids. To ensure that the coating is suitable for your requirements, please refer to the resistance table and seek advice.

If explosion prevention is needed, the electrically conductive product **KLB-SYSTEM EPOXID EP 285 EL+** offers an alternative.

Area of application

- Smooth coating for areas with an increased demand to chemical resistance.
- For commercially and industrially used areas.
- Different slip-resistance grade are producible when used with scatterings.

Product features

- Total Solid according to GISCODE (test method «Deutsche Bauchemie»)
- good solvent resistance
- very chemically resistant
- consistent to hydrolysis and saponification
- light, coloured surfaces
- hard and wear-resistant
- free of deleterious substances against varnish
- high-quality formula
- Solvent resistance

Technical data

Viscosity - Component A+B	2800 - 3200	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 99.8	%	KLB method
Density - Component A+B	1.59	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Weight loss	0.3	weight-%	after 28 days
Water absorption	< 0.2	weight-%	DIN 53515
Shore-hardness D	69	-	DIN 53505 (after 7 days)
Abrasion (Taber Abraser)	55	mg	ASTM D4060 (CS10/1000)

The values established in tests are average values. Deviations from the product specification may occur.

Tests

External test certificates are available:

- Suitable for use in foodstuffs according § 31 para. 1, German Food and Feed Code (german law LFGB).
- Slip resistance grade R9 and R10 possible, according to DIN 51130 and BGR 181.
- Product is compliant with DIN EN 13813: 2003-01.

Note:

Please ask for the tested system build-up!

Build-up of coats

- Prepare the substrate e.g. by shot-blasting.
- Prime with **EP 50**. Apply the freshly mixed material with a coating knife or trowel then re-roll, consumption approx. 0.3 - 0.4 kg/m².
- Apply a scratch coat with **EP 50** and mixed sand **KLB-Mischsand 2/1** (mixing ratio: 1.0 : 0.8 parts by weight). Use a coating knife or trowel to get a levelled thickness, consumption of mixture approx. 0.5 - 1.0 kg/m².
- If required, concave or triangular covings may now be inserted. These can be produce with **EP 179** and mixed sand **KLB-Mischsand 1** in a mixing ratio of 1 : 5 parts by weight.
- Apply the coating **EP 285 CR** after 18 hours but not longer than 48 hours. Process the material immediately after mixing with a coating knife or notched trowel (e.g. **Toothed Blade RS4** or Pajarito 48). Apply an even layer, consumption approx. 2.5 - 3.4 kg/m². The product is adjusted for optimum deaeration, however, rolling with a spiked roller is recommended to improve the wetting of the substrate, to optimise levelling and to remove remaining air

bubbles. This should be carried out time-delayed after approx. 10 - 15 minutes. In order to work seamlessly, always work “fresh-in-fresh” and define work areas before starting.

Substrate

The substrate to be coated must be even, dry, free of dust, sufficiently resistant to tension and compression as well as be free from weakly-bonded components or surfaces. Materials impairing adhesion such as grease, oil and paint residues should be removed with suitable measures. Observe the information issued by the trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S as well as the notes provided in the product information for the recommended base coats, like **EP 50, EP 51 RAPID S** or **EP 52 Spezialgrund**. The substrates to be coated should be prepared mechanically, preferably by shot-blasting. The prepared area must be saturated, pore-free and primed carefully. It is often difficult to judge the necessary pore-free condition of substrates. It is therefore recommended that a scratch coat be applied to smooth the surface. If the substrate has not been primed to be pore-free, bubbles and pores can develop in the coating due to air rising from the substrate. In case of doubt, we recommend testing on a trial surface. To increase adhesion scatter the surface with approx. 0.5 - 1.0 kg/m² quartz sand, grain size 0.3/0.8 mm.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component A has sufficient volume to contain the entire packaging unit. Empty all of the hardener compound B into the resin. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2 - 3 minutes until a homogeneous, streak-free compound forms. To prevent mixing errors, empty ("repot") the resin/hardener mixture into a clean container and mix it once again briefly.

Processing

After mixing, process the material immediately with a coating knife or toothed trowel by pulling out an even layer on the prepared surface. The product is adjusted for optimum deaeration, however, rolling with a spiked roller is recommended to improve the wetting of the substrate, to optimise levelling and to remove remaining air bubbles. This should be carried out time-delayed after approx. 10 - 15 minutes. In order to work seamlessly, always work “fresh-in-fresh” and define work areas before starting.

Floor and air temperature must not fall below 10 °C / 50 °F and humidity must not exceed 75 %. The material to be applied must be at room temperature during application. The difference in dew point and substrate temperature must be greater than 3 °C / 3 K / 5.4 °F during installation and curing. If a dew-point situation arises, regular drying will not be possible with hardening problems and spotting to occur.

Exposure to water and chemicals should be avoided during the first 7 days. The specified hardening times apply for 20 °C / 68 °F; temperatures below this require longer processing and curing times, while higher temperatures require shorter times. During curing, the recommended conditions must be ensured. If working conditions are not complied with, deviations in the described properties may occur in the end product.

Cleaning

To clean tools, use **VR 24** or **VR 33** immediately. Hardened material can only be removed mechanically.

Separate cleaning and care recommendations are available for cleaning floors produced with KLB coatings and sealers.

Storage

Store in dry and frost-free conditions. Ideal storage temperature is between 10 - 20 °C / 50 - 68 °F. Bring to a suitable processing temperature before application. Tightly re-seal opened packages and use up the content as soon as possible.

Special remarks

The product is regulated by the German Ordinance on Hazardous Substances (GefStoffV), the German Ordinance on Industrial Safety and Health (BetrSichV), and transport regulations for hazardous goods. The necessary information is contained in the DIN Safety Data Sheet. Observe all identification information on the container label!

GISCODE: RE30

Indication of VOC-content:
(EG-Regulation 2004/42) Maximum Permissible Value 500 g/l (2010,II,j/lb): Ready-for-use product contains < 500 g/l VOC.

CE marking

CE

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EP285CR-V1-022013
DIN EN 13813:2003-01
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR18

Fire behaviour	E_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 18

Please consider the latest version of this product information on our website.

All stated information is based on our experience and technical preparation. We guarantee the correct and proper quality of our products. We do not assume any responsibility for the work not carried out by us, since we have no influence on the processing or processing conditions. We recommend on-site trials to be conducted. With appearance of this new KLB product information, all prior information loses validity. The updated version is available on our website www.klb-koetztal.com. In addition, our "General Terms and Conditions“ apply.