KLB KÖTZTAL
Lacke+Beschichtungen GmbH

KLB-SYSTEM EPOXID
EP 200 VF

High-quality, solvent-free 2-component epoxy resin self-levelling coating, fillable.

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AM1237-50	Bucket combo	10.00 kg	30
AM1237-30	Hobbock combo	30.00 kg	12

Product characteristics

Mixing ratio parts by weight	A : B = 4 : 1
Mixing ratio parts by volume	A : B = 100 : 37
Processing time	10 °C / 50 °F : 50 min. 20 °C / 68 °F : 30 min. 30 °C / 86 °F : 20 min.
Processing temperature	Minimum 10 °C / 50 °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 until mechanical load at 20 °C / 68 °F 7 days until chemical load at 20 °C / 68 °F
Further coatings	After 14 - 18 hours, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	Approx. 1.4 - 1.6 kg/m² for each mm of layer
Layer thickness	1 - 4 mm
Addition of quartz sand	Recommended for layers starting at 2 mm of thickness, up to 70% of quartz sand 0.1/0.3 mm depending on usage and temperature
Colours	KLB standard colours – see chart. Other colours upon request! For scattered coatings with coloured sand KLB-Colorsand CQS-46xx, please refer to the colour chart of the coloured sand!
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 200 VF is a pigmented self-levelling coating based on a 2-component epoxy resin with very good flo and smoothing properties. Due to such, coatings starting at 1 mm can be applied depending on the demands to the floor.

KLB-SYSTEM EPOXID EP 200 VF contains high-quality resin components and is high in binding agents. Economic solutions can be achieved by addition of fire-dried quartz sand, especially for increased layer coatings. The product features easy handling and high class appearance.

Cured coatings are suitable for commercially and industrially used areas. **KLB-SYSTEM EPOXID EP 200 VF** is more formable than usual epoxy resin coatings and furthermore, has an excellent wear resistance.

As epoxy reisn coating, **KLB-SYSTEM EPOXID EP 200 VF** shows good resistance to yellowing and thus is very suitable for pale colour tones.

KLB-SYSTEM EPOXID EP 200 VF offers good resistance to chemicals, e.g. to bases, oil, grease, solvents, water, saline solutions, and different acids. For chemical resistance requirements, please ask for a separate consultation.

Area of application

- Commercially used areas for medium mechanical load, e.g. production areas, stocking areas in many economic sectors (2 mm coating).
- Commercially used areas for high mechanical load, e.g. production areas, stocking areas in many economic sectors (3 - 4 mm coating).
- Pigmented supporting layer for decorative coatings scattered with coloured sand or chips.

Product features

- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- good resistance range
- consistent to hydrolysis and saponification
- can be filled with fire-dried quartz sand
- lower viscosity
- resistant to abrasion and wear
- coloured surface

Technical data

Viscosity - Component A+B	2600	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 99	%	KLB method
Density - Component A+B	1.48	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 53495
Bending tensile strength	30	N/mm²	DIN EN 196/1
Compressive strength	70	N/mm²	DIN EN 196/1
Shore-hardness D	80	-	DIN 53505 (after 7 days)
Abrasion (Taber Abraser)	50	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:

- Slip resistance grade R9 and R10 possible, according to DIN 51130 and BGR 181.
- LABS-compliant according to PV 3.10.7. (VW test)
- Product is compliant with DIN EN 13813: 2003-01.

Note:

Please ask for the tested system build-up!

Build-up of coats

Smooth coating in medium layers

- Prime with one of the recommended KLB base coats, like **EP 30, EP 50, EP 51 RAPID S, EP 52 Spezialgrund,** or **EP 52 RAPID**, consumption approx. 0.3 - 0.4 kg/m², depending on the resin and substrate.
- Apply a scratch coat for an even substrate, e.g. with **EP 50, EP 51 RAPID S, EP 52 Spezialgrund** or **EP 52 RAPID,** and mixed sand **KLB-Mischsand 2/1**. Mixing ratio approx. 1 : 0.8 parts by weight, consumption approx. 0.8 to 1.3 kg/m².

- Apply the coating **EP 200 VF** using a notched trowel (**Toothed blade RS4** or Pajarito 48), consumption approx. 2.6 - 3.0 kg/m² for 2 mm layer thickness.
- Optional: scatter with silicum carbide, delustering agent, or decorative chips (flakes).
- Seal the surface with a suitable silk or matt sealer, such as **EP 705 E, PU 805 E, PU 880,** or **PU 882.**

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 KLB base coats **EP 30, EP 50, EP 51 RAPID S** and **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. If in doubt, we recommend processing a sample area. To improve adhesion, scatter the surface completely with 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.

Addition of quartz sand: add the additives only after the components have been pre-mixed. Suitable is quartz sand with a grain size of 0.1/0.3 mm. Do not use quartz flour or sand blends. The added quantities depend on layer thickness, temperature, and type of sand. **EP 200 VF** can usually be mixed with 0.5 up to 0.7 kg of quartz sand per 1 kg of coating material. For thin coats, the addition of sand is not recommended as the self-levelling properties might deteriorate in the process. In case of such poor flow behaviour, either the addition of sand should be reduced by the installer or the layer thickness increased.

Processing

Process the material immediately after mixing with a squeegee or notched trowel (e.g. **Toothed Blade RS4** or Pajarito 48) by pulling out an even layer on the prepared substrate. 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 - 20 minutes. To work seamlessly, always work “fresh-in-fresh” and define work areas before starting. For reasons of deaeration, do not scatter too early; the optimum time is at 20 °C / 68 °F after 20 - 30 minutes.

Floor and air temperature must not fall below 10 °C / 50 °F and humidity should not exceed 75 %. The difference in floor and room temperature must remain less than 3 °C / 3 K/ 5.4 °F so as not to impede the curing process. If a dew-point situation arises, regular curing will not be possible with hardening problems and spotting to occur. Exposure to water should be avoided during the first 7 days. The specified curing times apply for 20 °C / 68 °F; temperatures below this require longer processing and curing times, while higher temperatures require shorter times.

If working conditions are not complied with, the technical properties of the end product may deviate from those specified (surface and stability).

Cleaning	To remove fresh contamination and to clean tools, use thinner **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 if possible, 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
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen
13
EP200VF-V1-022013
DIN EN 13813:2003-01
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR16

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 16

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