



KLB-SYSTEM EPOXID

EP 57

AgBB-tested, low-emission 2-component epoxy resin primer

Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AK1307-92	Combo can	1.00 kg	240
AK1307-50	Bucket combo	10.00 kg	30
AK1307-30	Hobbock combo	30.00 kg	12
AK1307-02	Drum combo	600.00 kg	0,5

Product characteristics

Mixing ratio parts by weight	A : B = 100 : 50
Mixing ratio parts by volume	A : B = 100 : 53
Processing time	10 °C / 50 °F : 50 min. 20 °C / 68 °F : 30 min. 30 °C / 86 °F : 15 min.
Processing temperature	Minimum 10 °C / 50 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 14 - 18 hrs. 20 °C / 68 °F : 7 - 10 hrs. 30 °C / 86 °F : 5 - 7 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 curing, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	Base coat: approx. 0.250 - 0.350 kg/m ² Scratch coat: approx. 0.450 - 0.600 kg/m ² Mortar: approx. 0.150 - 0.300 kg/m ² for each mm of layer
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 57 is a high-quality, low-emission and all-purpose 2-component epoxy resin based on the extremely proven **KLB-SYSTEM EPOXID EP 50**.

KLB-SYSTEM EPOXID EP 57 is certified according to "Indoor Air Comfort Gold" and meets the requirements for a sustainable building certification according to DGNB, LEED or BREEAM. The "Indoor Air Comfort Gold" product certification sets the highest requirements for the emission of volatile organic compounds and meets not only the German requirements of AgBB or ABG, but also the emissions regulations of many other European countries.

Use **KLB-SYSTEM EPOXID EP 57** as base coat, for scratch coats, or as levelling mortar for renovations or new constructions. Due to its low-viscosity and good wettability properties, the resin penetrates very well into the substrate and develops a high-strength base for subsequent coatings.

Area of application

- As low-emission primer for scratch coats and priming fillers.
- For levelling layers and epoxy resin mortar.

Product features

- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- tested, low-emission quality
- high-quality primer
- all-purpose use
- consistent to hydrolysis and saponification
- free of deleterious substances against varnish
- proven quality

Technical data

Viscosity - Component A+B	550	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 99	%	KLB method
Density - Component A+B	1.10	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	35	N/mm ²	DIN EN 196/1
Compressive strength	80	N/mm ²	DIN EN 196/1
Adhesive tensile strength	> 1.5	N/mm ²	DIN EN 1542
Shore-hardness D	80	-	DIN 53505 (after 7 days)

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

Included in systems

- [System C1 - KLB LOW-VOC EP Standard](#)
- [System C2 - KLB LOW-VOC EP RX](#)
- [System C4 - KLB LOW-VOC PHARMA EP Screed](#)
- [System C5 - KLB LOW-VOC DECOR EP RX](#)
- [System D1 - KLB TECH CLEAN INDUSTRIAL LOW-VOC EP](#)
- [System F6 - KLB CONDUCTIVE LOW-VOC PU ESD Elastic](#)
- [System F7 - KLB CONDUCTIVE EP ESD Structured](#)
- [System G1 - KLB INDUSTRIAL LOW-VOC PU Standard](#)
- [System G7 - KLB DECOR LOW-VOC PU Light Sealed](#)

Please visit our website to get more information about our KLB systems: www.klb-koetztal.com

Tests

The following external test certificates are available:

- Certified as low-emission according to Eurofins "Indoor Air Comfort Gold". In combination with different coatings, compliant with AgBB for recreation rooms.
- Examining the imperviousness to radon when combined with the coating **PU 410**: > 2.4 mm impervious to radon.

Note:

Please ask for the tested system build-up!

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. Surfaces suitable for priming are concrete C20/25, cement screed CT-C35-F5, as well as other sufficiently solid substrates. The substrate has to have adequately high strength for the intended occupational use. Coating mastic asphalt with epoxy resin is not recommended. The substrates to be coated should be prepared mechanically, preferably by shot blasting. The surface strength must then be at least 1.5 N/mm². For concrete,

moisture content must not exceed 4.5 CM-%, remaining residual humidity. The possibility of moisture ingress from the rear must be permanently excluded. Observe the information issued by the trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S. Reconstructing floors may require special procedures. Obtain technical advice.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component A has sufficient volume for the entire packaging unit. Empty all of the hardener compound B and mix immediately. 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 entire resin/hardener mixture into a clean container and mix it once again briefly.

Producing scratch coats and mortar:

Scratch coats:

1.0 kg **KLB-SYSTEM EPOXID EP 57**
0.5 - 0.8 kg mixed sand **KLB-Mischsand 2/1**

Epoxy resin mortar:

1.0 kg **KLB-SYSTEM EPOXID EP 57**
8.0 - 12.0 kg mixed sand **KLB-Mischsand 1**

Before adding any additives, the resin must be premixed, only then is added the supplement. The amount of mixed sand depends on the necessary consistency and stability.

Processing

Base coat: process the material as a base coat immediately after mixing with a squeegee, trowel, or nylon roller. Apply an evenly sealed coat on the substrate. To achieve a dense surface, apply a second layer or a saturated scratch coat if the substrate is highly absorbent. Scatter the fresh coating with quartz sand (grain size 0.3/0.8 mm) for optimum adhesion. This is mandatory if the subsequent coating will be applied later than 24 hours after the primer.

Scratch coat: apply a scratch coat before any further coatings to level the substrate - but also for full pore-closure. Use a trowel, metal, or rubber squeegee. The consistency of the filling compound has to be adjusted according to the substrate absorbency, for a material that runs true.

Priming filler: primers can be applied as trowelling coat at the same time if it is ensured that a sufficient sealing is achieved in one coat for subsequent coatings. Usually, prime filling coats may be filled with 0.5 kg of mixed sand **KLB-Mischsand 2/1** for 1 kg of epoxy resin. Apply with a rubber squeegee, with a consumption of 0.7 - 1.0 kg/m², depending on the depth of roughness of the substrate.

Epoxy resin mortar: for repair work, the mortar can be made of **EP 57**. It is recommended to use special resins like **EP 150** for industrial mortar coatings. Process immediately after mixing. Pull off the mortar with a lath, compact and smooth with a smoothing trowel. Clean tools with small amounts of **VR 24** if necessary.

Special remarks: we advise against the "resinification" of screed/flat joints and break-outs in the screed or concrete with pure epoxy resin or set with suspending agent. For the application, always use the KLB primer resin in combination with quartz sand e.g. **KLB-Mischsand 1** or **KLB-Mischsand 2/1**. For this, we recommend adding at least 1 - 3 parts by weight of filler to 1 parts by weight of primer; if necessary, 0.2 - 2 % of suspending agent can be added to adjust the consistency. Intermediate grinding should be carried out to improve adhesion to subsequent coats.

Cleaning

To remove fresh contamination and to clean tools, use thinner **VR 24** or **VR 33** immediately. Hardened material can only be removed mechanically.

Storage

Store in dry and if possible, at 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

	
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen	
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EP57-V1-022013	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR4	
Fire behaviour	E ₁ -s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 4

VOC content

The product complies with the high requirements to low VOC contents, as required for sustainable construction. Therefore, these values are well below the limits set by the European Union directive 2004/42/EG (Decopaint Directive).

	Limit value	Actual content	
Decopaint Directive 2004/42/EG - Component A	< 500	1,2	g/l
Decopaint Directive 2004/42/EG - Component B	< 500	0	g/l
DGNB - Components A + B	< 3	0,07	%
Klima:aktiv - Components A + B	< 3	0,07	%
Minergie ECO ® - Components A + B	< 1 (< 2)	0,07	%

(According to the Decopaint directive, single components are used for calculation. In the sustainable building rating systems, the mixture of both components in the correct mixing ratio is the determining factor.)



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 in individual cases. With the publication of this new KLB product information, all prior information loses validity. The latest version is available electronically on our website www.klb-koetzal.com. In addition, our "General Terms and Conditions" apply.