

# KLB-SYSTEM EPOXID EP 150

High-quality, solvent-free 2-component epoxy resin for decorative and industrial mortar coatings

## Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AK1111-50	Bucket combo	10.00 kg	30
AK1111-30	Hobbock combo	30.00 kg	12
AK1111-06	Drum combo	600.00 kg	0,5

## Product characteristics

Mixing ratio parts by weight	A : B = 2 : 1
Mixing ratio parts by volume	A : B = 100 : 55
Processing time	10 °C / 50 °F : 75 min. 20 °C / 68 °F : 45 min. 30 °C / 86 °F : 25 min.
Processing temperature	Minimum 10 °C / 50 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 20 - 24 hrs. 20 °C / 68 °F : 10 - 13 hrs. 30 °C / 86 °F : 8 - 10 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	When wet or after curing, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	Base coat: approx. 0.300 - 0.400 kg/m <sup>2</sup> Mortar coating: mixing ratio 1 : 8 1.35 kg/m <sup>2</sup> for 6 mm layer Mortar coating: mixing ratio 1 : 10 1.10 kg/m <sup>2</sup> for 6 mm layer Mortar coating: mixing ratio 1 : 12 1.00 kg/m <sup>2</sup> for 6 mm layer
Packaging	Bucket combo 10 kg, Hobbock combo 30 kg, Drum combo 600 kg
Shelf life	12 months (originally sealed)

## Product description

**KLB-SYSTEM EPOXID EP 150** is a low-viscosity epoxy resin for decorative reaction resin coatings with coloured and natural sand. **KLB-SYSTEM EPOXID EP 150** is an easy to apply mortar system. Due to its special composition, the resin has low yellowing properties and is especially suitable for decorative mortar coatings. Additionally, it may be used for base, levelling and scratch coats. Epoxy resin mortars can usually be mixed with quartz sand in a ratio of 1 : 6 up to 1 : 12. The mechanically mixed mortar is easy to spread and smooth. The coating is usually applied manually, but it may also be applied mechanically with a power float. (For suitable sand mixtures, please contact KLB; for your own sand mix, conduct a trial).

**KLB-SYSTEM EPOXID EP 150** is a slow-setting resin and offers a sufficiently long processing time for mortar applications. **KLB-SYSTEM EPOXID EP 150** offers a balanced curing time compared to other products. Processing may be continued even after 1 day if processing temperatures are being complied with. The final product is hard but not brittle and therefore ideal as bonding mortar.

The resin offers good resistance to chemicals, especially to aqueous liquid salt solutions, acids and alkalis, as well as solvents. Conditionally resistant to organic acids. Shortterm resistance to damp heat up to 80 °C / 176 °F, dry heat up to approx. 120 °C / 248 °F. **KLB-SYSTEM EPOXID EP 150** offers good colour tone stability, like all other resins the material is not resistant to yellowing though. To increase surface

properties mortar coatings need to be treated with top coats. According to mortar composition and requirements, one or more coats may be required. Suitable are **KLB-SYSTEM EPOXID EP 175 Special**, **KLB-SYSTEM EPOXID EP 179**, **KLB-SYSTEM EPOXID EP 705 E** and **KLB-SYSTEM EPOXID EP 860**.

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**Area of application**

- Manually and mechanically levelled mortar coatings in a thickness range of 5 - 15 mm.
- Mortar coatings made of natural and decorative sand.
- Levelling layers, underlay mortar and primers before epoxy mortar installation.
- Base coats underneath mortar coatings.

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**Product features**

- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- especially for decorative coatings
- good interlayer adhesion
- especially suitable for manual application
- low-grade yellowing
- free of deleterious substances against varnish
- proven quality

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**Technical data**

Viscosity - Component A+B	400	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 99	%	KLB method
Density - Component A+B	1.08	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/mm <sup>2</sup>	DIN EN 196/1
Compressive strength	70	N/mm <sup>2</sup>	DIN EN 196/1
Adhesive tensile strength	> 1.5	N/mm <sup>2</sup>	DIN EN 1542
Shore-hardness D	75	-	DIN 53505 (after 7 days)

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

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**Included in systems**

- [System A6 - KLB INDUSTRIAL EP Screed](#)
- [System A7 - KLB DECOR PHARMA EP Screed](#)

Please visit our website to get more information about our KLB systems: [www.klb-koetzal.com](http://www.klb-koetzal.com)

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**Tests**

The following external test certificates are available:

- Classification of the fire behaviour according DIN EN 13501-01:2010-01: B<sub>fl</sub>-s1.
- Examining the resistance against peroxide by fumigation with hydrogen peroxide for 24 hrs.

**Note:**

Please ask for the tested system build-up!

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## 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 coating are concrete (at least C20/25) and cement screed CT-C35-F5, as well as other sufficiently solid substrates. Coating mastic asphalt with epoxy resins is not recommended. The substrate has to have adequately high strength for the intended occupational use. The substrates to be coated should be prepared mechanically, preferably by shot-blasting. The surface strength must then be at least 1.5 N/mm<sup>2</sup>. 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. The substrate must be sufficiently level and primed for machine smoothing. **EP 150** or another KLB priming resin can be used for priming. The primer must be scattered with quartz sand, grain size 1 to 2 mm.

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## Mixing

If the components are packed individually, they must be weighed out exactly in the specified mixing ratio. 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.

**Producing mortars:** mixing synthetic resin mortars in order to achieve a consistent mortar quality should generally be carried out with a compulsory mixer. For this purpose, pre-mix the additives briefly, add the mixed resin whilst the mixer is running, then pour the resin/hardener mixture into the running mixer. Important: the mixing times must always be the same. Then process the complete mixture.

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## Processing

The mortar mixture should always be processed immediately in order to keep the change in consistency due to the reaction progress to a minimum. This gives the most even surfaces; partially reacted material is more difficult to work with and can lead to altered surface structures and visible working transitions. Apply the material in portions on the substrate and distribute evenly, e.g. with a gauge. Compact and smooth manually or mechanically. Always work "fresh-in-fresh" to avoid any shoulders. Working areas must be separated in accordance with the installation process. The mortar installation requires an experienced and trained staff. Mortar coatings should generally be sealed. The number of coats and choice of material depends on the finish requirements and the mortar system.

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 hardening 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 load capacity).

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## Cleaning

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

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**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: RE90

**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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EP150-V2-072015	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR4	
Fire behaviour	B <sub>fl</sub> s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 4



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-koetztal.com](http://www.klb-koetztal.com). In addition, our "General Terms and Conditions" apply.