KLB KÖTZTAL
Lacke + Beschichtungen GmbH

KLB-SYSTEM EPOXID
EP 150

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

Mixing ratio	Parts by weight	A : B =	2 : 1	
	Parts by volume	A : B =	100 : 55	
Processing time	Temperature	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F
	Time	75 minutes	45 minutes	25 minutes
Processing temperature		Minimum 10 °C / 50 °F (room- and floor-temperature)		
Curing time	Temperature	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F
(Accessibility)	Time	20 - 24 hrs.	10 - 13 hrs.	8 - 10 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		During wet state or after curing,		
		but not longer than 48 hours at 20 °C / 68 °F		
Consumption	Base coat	Approx. 0.250 - 0.350 kg/m²		
	Mortar coating	Mixing ratio 1 : 8	1.35 kg/m² for 6 mm layer	
	Mortar coating	Mixing ratio 1 : 10	1.10 kg/m² for 6 mm layer	
	Mortar coating	Mixing ratio 1 : 12	1.00 kg/m² for 6 mm layer	
Packaging		Bucket-Combi 10 kg, Hobbock-Combi 30 kg, Drum-Combi 600 kg		
Shelf life		12 months (originally sealed)		

Usage and Properties

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-coats, levelling coats and scratch-coats. Epoxy resin mortars can usually be mixed in the ratio 1 : 6 up to 1 : 12 with quartz sand. 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 mixes, 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. Short-term 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.**

Product Features

- “total solid” according to Giscode (test method of the Deutsche Bauchemie, German contruction chemistry association)
- high-quality formula
- especially suitable for decorative coatings
- good interlayer coat adhesion
- all-purpose and reliable
- especially suitable for manual application
- only slightly yellowing
- free of deleterious substances against varnish

Testing

External test certificates are available:

- Classification of the fire behaviour according DIN EN 13501-01:2010-01: B_{fl}-s1.

Note: Please ask for the tested system structure!

Area of Application

- Manually and mechanically applied levelled mortar coatings in a thickness range of 5 - 15 mm.
- Mortar coatings made of natural and decorative sand.
- Levelling coats, mortar underlayments and base-coats prior to installation of epoxy-resin mortar.
- Base-coats underneath mortar coatings.

Substrate

The substrate to be coated has to be levelled, dry, free of dust, has to have adequate tensile and compressive strength and be free from weakly-bonded components or surfaces. Materials impairing adhesion, such as grease, oil, and paint residues must be removed using suitable methods. Suitable surfaces are concrete, at least C20/25, cement screed CT-C35-F5, as well as other adequately sound surfaces. The substrate must have adequately high strength for the proposed occupational use. The coating of mastic asphalt with epoxy resin is not recommended. The surface to be coated should be prepared mechanically, preferably by shot-blasting. The surface strength must then be a minimum of 1.5 N/mm^2. 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. Please refer to the advice issued by the trade associations, e.g. the current edition of BEB-worksheets KH-0/U and KH-0/S.

Reconstructing floors may need special procedures. Obtain technical advice.

With machine finished application the substrate has to be sufficiently levelled and primed. Use **EP 150** or another KLB-base coat for priming. Scatter the base coat with quartz sand, grain size 1 to 2 mm.

Mixing

For a partial use, single components need to be weighed in the precise mixing ratio. Combi-trading units will be supplied in the correctly measured mixing ratio. Component A has sufficient volume for the entire trading unit. Decant the hardener completely into the resin. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2 - 3 minutes, for a material that is homogeneous and free of streaks.

Producing mortars: Mixing synthetic resin mortars, in order to achieve a consistent mortar quality, should generally be carried out with a compulsory mixer. Pre-mix additives briefly, then add the mixed resin whilst the mixer is running. **Important:** Note for consistent mixing time. Then process the complete mixture.

Processing / Handling

The mortar mixture should always be processed immediately to avoid any changes in consistency due to the reaction process. Results in very even surfaces. Material that is already reacting is more difficult to process and may lead to altered surface structures and visible process 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 must not exceed 75 %. The difference in floor- and room-temperature must be less than 3 °C / 37.4 °F so the curing will not be disturbed. If a dew-point situation occurs adhesion may malfunction, curing may be disturbed, and spotting may occur. Exposure to water should be avoided for the first 7 days. Curing time applies to 20 °C / 68 °F. Lower temperature may increase, higher temperature may decrease the curing and processing time.

If working conditions are not complied with, deviations in the described properties (surface and resistance) may occur in the end product.

Cleaning

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

Storage

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

Special Remarks

The product is subject to the hazardous material-, operational safety-, and transport-regulations for hazardous goods. Refer to the DIN-Safety Data Sheet and the information on the labelled containers!

GISCODE (05/2018 modification): RE 30

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

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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_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 4

Technical Data*

Viscosity	Components A + B	400	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content		> 99	%	KLB-Method
Density	Components 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/mm²	DIN EN 196/1
Compressive strength		70	N/mm²	DIN EN 196/1
Shore-hardness D		75	-	DIN 53505 (after 7 days)
Adhesive tensile strength		> 1.5	N/mm²	DIN EN ISO 1542

(* Values achieved in sampling are average values. Variation in product specification is possible.)

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.

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to ISO 9001.