

KLB-SYSTEM EPOXID

EP 175 Spezial

Low-yellowing 2-component epoxy resin for scattered and decorative coatings

Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AK1088-50	Hobbock combo	10.00 kg	30
AK1078-30	Hobbock combo	30.00 kg	12
AK1078-01	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 : 57
Processing time	10 °C / 50 °F : 60 - 70 min. 20 °C / 68 °F : 35 - 40 min. 30 °C / 86 °F : 20 - 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 - 12 hrs. 30 °C / 86 °F : 6 - 8 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	Approx. 0.6 - 0.9 kg/m ² for resination on scattered coatings
Packaging	Combo packaging 10 kg, Hobbock combo 30 kg, Drum combo 600 kg
Colours	Transparent, pigmented if desired
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 175 Spezial is a high-quality 2-component epoxy resin. Use as transparent sealer and for decorative scattered coatings and decorative sand mortar coatings. The 2-component material consists of a medium, pale epoxy resin and a high-quality polyamine hardener. The final product shows only minimum colouration and results in an optically even, appealing coat.

KLB-SYSTEM EPOXID EP 175 Spezial is adjusted as top sealer for coloured sand scattered coats for slip resistant wet areas, like e.g. kitchen, abattoirs, butchers, fish- and food processing industry, furthermore for all coloured sand scattered applications.

KLB-SYSTEM EPOXID EP 175 Spezial is suitable as smoothening pore sealer and smoothening filler for decorative and Terrazzo coatings. Apply in duplicate layers when used as pore sealer. For an increased optical appearance apply a matt sealer afterwards. The thoroughly mixed resin cures to a colourless, hard and glossy surface. The resin is only slightly yellowing which may become visible though on pale coloured or increased layer coatings. The epoxy based product is suitable for areas with demands to the mechanical and chemical resistance. The surface is abrasion resistant, hygienic, and easy to clean. The product has been tested regarding to the usage in the food processing industry by "Institut Nehring, Braunschweig". Ask for the test certificate.

An additional coating with **KLB-SYSTEM EPOXID EP 860** is required in wet areas. Staining will clearly be reduced.

In combination with 15 % of glass beads (grain size 0.2/0.4 mm), **EP 175 Spezial** can be used as transparent sealer with glass beads on various smooth EP coatings (see build-up of coats) to achieve the slip resistance grade R9.

Area of application

- **EP 175 Spezial** is suitable as top sealer for slip-resistant, wet-stressed and scattered surfaces in the food processing industry.
- As pore sealer for coloured and fine grained Terrazzo coatings. Use in combination with matt sealers, like **EP 705 E**, **PU 805 E**, **PU 880**, **PU 882**, **EP 860** and others.

Product features

- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- suitable for wet areas
- mechanically resistant
- good interlayer adhesion
- non-pigmented, glossy
- good resistance to water and chemicals
- low-grade yellowing
- consistent to hydrolysis and saponification
- free of deleterious substances against varnish

Technical data

Viscosity - Component A+B	Approx. 550 - 650	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	99.8	%	KLB method
Density - Component A+B	1.08	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Water absorption	< 0.2	weight-%	DIN 53495
Flexural strength	> 25	N/mm ²	DIN EN 196/1
Compressive strength	> 70	N/mm ²	DIN EN 196/1
Shore-hardness D	78	-	DIN 53505 (after 7 days)

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

Included in systems

- **System A5 - KLB INDUSTRIAL EP RX Robust**
- **System H1 - KLB KITCHEN EP Standard**
- **System H5 - KLB FOOD EP RX Decor**

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

Tests

The following external test certificates are available:

- Classification of the fire behaviour according DIN EN 13501-01:2010-01: B_{fl}-s1.
- Suitable for use in foodstuffs according § 31 para. 1. German Food and Feed Code (german law LFGB).
- With proof of usability as industrial kitchen coating within the system.
- Scattered coating in combination with **EP 99** with slip resistance grade R11/V4, R11/V6, R11/V8, R12/V4, R12/V6, R13/V8 producible, according to DIN 51130 and BGR 181.

Note:

Please ask for the tested system build-up!

Build-up of coats

Slip resistant scattered coating for wet areas

- Apply a recommended KLB priming resin like **EP 50**. Scatter openly with quartz sand 0.3/0.8 mm.
- Apply a leveling coat with e.g. **EP 50** and mixed sand **KLB-Mischsand 2/1** depending on the grade of roughness of the substrate.
- Apply a coat **EP 99** or **EP 216 Universal** in layers of 1.5 - 2.0 mm. Scatter with coloured sand, grain size 0.3/0.8 or 0.7/1.2 mm. Sweep off any excess sand. Grind and vacuum if necessary.
- Resinate the surface with **EP 175 Spezial** with a rubber squeegee. Afterwards roll off with a velour roller for the desired slip resistance. Control the consumption for the required slip resistance.
- Apply the top sealer **EP 860** with a solvent-resistant velour roller in crosswise motion.

Decorative industrial coating with a smooth surface

- Apply a recommended KLB priming resin like **EP 50**. Scatter openly with quartz sand 1 - 2 mm.
- Apply **EP 150** as decorative or industrial mortar.
- For smooth coatings, apply a pore sealer with **EP 175 Spezial** (2 to 3 times). Alternatively, use pore sealers **EP 177** or **EP 179** with a one-coat resination with **EP 174**, **EP 175**, or **EP 175 Spezial**.
- Apply a matt sealer **PU 805 E**, **EP 705 E**, **EP 860**, or **PU 880**.

EP coating with glass beads top sealer in R9:

- Apply a recommended KLB priming resin like **EP 50**, **EP 52 Spezialgrund**.
- Optional scratch coat to create a level substrate, e.g. using **EP 50**, **EP 52 Spezialgrund** and **KLB-Mischsand 2/1** in a mixing ratio of 1 : 0,8 parts by weight. Consumption of mixture approx. 0.8 to 1.3 kg/m².
- Apply the coating **EP 220**.
- Apply the sealer consisting of **EP 175 Spezial** and 15 % of glass beads (grain size 0.2/0.4 mm), consumption approx. 0.220 - 0.250 kg/m², then re-roll with a structured roller to achieve the slip resistance grade R9.

Important note: **EP 216 Universal** is not suitable as base layer for a subsequent top sealer application of glass beads and **EP 175 Spezial**!

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 such as **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. To improve adhesion, scatter the surface completely with 0.5 - 1.0 kg/m² quartz sand, grain size 0.3/0.8 mm.

If the products are used to resinate mortar surfaces or to top seal coloured sand scattered coatings, ensure that the surfaces are not older than 48 hours.

Remove any excess sand on scattered coatings after approx. 12 - 24 hours (dependant on the product used as base coat) by thoroughly sweeping, chipping off, and vacuuming. For smoother substrates, grind the surface slightly. This method calls for experience so that the sand bed will not be soiled. The resin may be applied after all loose sand has been removed. It is important that the surfaces are not soiled

or contaminated with adhesion-reducing substances. Only staff in process should enter the area with clean, pale-coloured shoes.

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. For partial withdrawals the material needs to be weighed in the precise mixing ratio. To prevent mixing errors, empty ("repot") the resin/hardener mixture into a clean container and mix it once again briefly.

Processing

Scattered coatings: apply the mixed material on the scattered, prepared surface. Pull off evenly with a smooth double-lipped rubber squeegee and avoid ponding. Distribute or re-roll with a lint-free nylon roller in crosswise motion. Use rollers for an even and pore-free structure. The used amount depends on the required slip resistance and the displacement. Detailed amount of consumption will be stated as required.

Application with a roller in crosswise motion results in a higher roughness of the covering. If the coating is to be very smooth, the process can be repeated after an intermediate grinding and/or a matt sealer can be applied.

For wet areas, use **EP 860** as top finish.

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 surface imperfections and stains to appear appear. Exposure to water should be avoided during the first 2 - 3 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.

Special remark: in specific light and weather conditions and after long and intensive use, color variations, loss of gloss and yellowing may occur

Cleaning

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

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: 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 89335 Ichenhausen, GERMANY	
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EP175Spezial-V1-102025	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1,5-AR0,5-IR12	
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 12



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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.