

# KLB-SYSTEM EPOXID

## EP 175 Spezial

2-component epoxy resin, for scattered and decorative coatings, only slightly yellowing

Mixing ratio	Parts by weight	A : B	=	2 : 1
	Parts by volume	A : B	=	100 : 57
Processing time	Temperature	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F
	Time	70 min.	40 min.	25 min.
Processing temperature		Minimum 10 °C / 50 °F (room- and floor-temperature)		
Curing time (Accessibility)	Temperature	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F
	Time	20 - 24 hrs.	10 - 12 hrs.	6 - 8 hrs.
Curing	mechanical	2 - 3 days for mechanical load at 20 °C / 68 °F		
	wet	2 - 3 days for wet load at 20 °C / 68 °F		
	chemical	7 days for chemical resistance at 20 °C / 68 °F		
Further coatings		After curing, but not longer than 48 hours at 20 °C / 68 °F		
Consumption		Approx. 0.6 - 0.9 kg/m <sup>2</sup> for resination on scattered coatings		
Colour		Transparent, pigmented if desired		
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 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.

**EP 175 Spezial EL+** is a product variant of **EP 175 Spezial** with conductive additives for the production of electrically conductive Colorsand – scattered coatings (conductive RX areas). For alternative applications, the conductivity has to be checked within the system!

**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 thorough-

ly mixed resin cures transparent and hard with a 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.

### Product Features

- "total solid" according to Giscode (test method of the Deutsche Bauchemie, German construction chemistry association)
- suitable for wet areas
- resistant to mechanical load
- good interlayer adhesion
- non-pigmented, glossy
- resistant to water and chemicals
- only slightly yellowing
- resistant to hydrolysis and saponification
- free of deleterious substances against varnish

## Testing

External test certificates are available:

- Classification of the fire behaviour according DIN EN 13501-01:2010-01: Bfl-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.

**Note:** Please ask for the tested system structure!

## Area of Application

- **EP 175 Spezial** is suitable as top sealer for slip resistant, wet areas in the food section.
- As pore sealer for 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.

## Build-up of Coats

### Slip resistant scattered coating for wet areas

- Apply a recommended KLB-Base Coat, like e.g. **EP 50**. Scatter with quartz sand 0.3/0.8 mm.
- Apply a leveling coat with e.g. **EP 50** and **KLB-Mischsand 2/1** depending on the grade of roughness of the substrate.
- Apply a coat **EP 99** or **EP 213** 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 coating knife. Afterwards roll off with a velour roller for the desired slip resistance. Control the consumption for the required slip resistance.
- Apply the top finish sealer **EP 860** with a solvent resistant velour roller using criss-cross strokes.

### Decorative industrial coating with a smooth surface

- Apply a recommended KLB-Base Coat, like e.g. **EP 50**. Scatter 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 sealer **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**.

## 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. Please refer to the advice issued by the trade association, e.g. the current edition of BEB-worksheets KH-O/U and KH-O/S, as well as the product information for the recommended KLB-Base Coats, like e.g. **EP 30**, **EP 50**, **EP 51 RAPID S**, or **EP 52 Spezial**. The substrate to be coated should be prepared mechanically, preferably by shot-blasting. The surface has to be prepared accurately, saturated, and free of pores. To increase adhesion, scatter the surface with approx. 0.5 - 1.0 kg/m<sup>2</sup> quartz sand 0.3/0.8 mm.

If the product is used for the resination of mortar surfaces or as top sealer for coatings scattered with coloured sand, make sure that the coating hasn't been applied longer 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 very important that the area is not soiled or contaminated with any substances preventing adhesion. Only staff in process should enter the area with clean, pale-coloured shoes.

## Mixing

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

## Processing / Handling

**Scattered coatings:** Apply the mixed material on the scattered, prepared surface. Pull off evenly with a smooth double-lipped rubber coating knife, without ponding. Distribute or re-roll with a lint-free nylon-roller, using criss-cross strokes. Use rollers for an even, sealed 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 using criss-cross strokes results in an increased coarseness. For a very smooth coating, repeat after an in-between grinding and/or seal with a matt sealer.

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

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 within the first 2 - 3 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 may occur in the end product.

**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 at 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.

### Technical Data\*

Viscosity	Components A + B	1000	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content		99.8	%	KLB-Method
Water absorption		< 0.2	weight-%	DIN 53495
Bending tensile strength		> 25	N/mm <sup>2</sup>	DIN EN 196/1
Compressive strength		> 70	N/mm <sup>2</sup>	DIN EN 196/1
Density	Components A + B	1.08	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Shore-hardness D		78	-	DIN 53505 (after 7 days)

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

	
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EP175Spezial-V2-072015	
<b>DIN EN 13813:2003-01</b>	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR1.0-IR12	
Fire behaviour	B <sub>f</sub> -s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 1.0
Adhesive tensile strength	B 1.5
Impact resistance	IR 12



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Certified according  
to ISO 9001.