

# KLB-SYSTEM EPOXID

## EP 71

Ready-to-use 2-component epoxy resin for priming and levelling normally absorbent concrete and screed substrates, prior to the application of coating systems.

### Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AK1333-50	Bucket combo	12.00	30
AK1333-01	Drum combo	1200.00	0,33
AK1333-30	Hobbock combo	30.00	12

### Product characteristics

Mixing ratio parts by weight	A : B = 5 : 1
Mixing ratio parts by volume	A : B = 100 : 33
Processing time	10 °C / 50 °F : 45 min. 20 °C / 68 °F : 25 min. 30 °C / 86 °F : 15 min.
Processing temperature	Minimum 10 °C / 50 °F - Maximum 30 °C / 86 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 7 - 10 hrs. 20 °C / 68 °F : 5 - 6 hrs. 30 °C / 86 °F : 3 - 4 hrs.
Curing	1 - 2 days until mechanical load at 20 °C / 68 °F 7 days until chemical load at 20 °C / 68 °F
Consumption	Primer: 0.3 - 0.6 kg/m <sup>2</sup> depending on the roughness of the substrate Scratch coat: 0.5 - 0.9 kg/m <sup>2</sup> depending on the roughness of the substrate, if required add 20 - 50% of quartz sand 0.1/0.3 mm (depending on the temperature)
Shelf life	12 months (originally sealed)

### Product description

**KLB-SYSTEM EPOXID EP 71** is a 2-component epoxy resin primer for preparing substrates for subsequent coatings.

**KLB-SYSTEM EPOXID EP 71** can be applied as a ready-to-use primer and as levelling coating to adjust the depth of roughness prior to the application of following coatings.

The product is especially suitable for scattered floor coatings, for which it is necessary to level and compensate the depth of the roughness.

With a subsequent smooth coating, apply at least two layers of **KLB-SYSTEM EPOXID EP 71** or one base layer plus scratch coat to achieve a pore-free surface. For better levelling the depth of roughness, add approx. 20 - 50 % of 0.1/0.3 mm fire-dried quartz sand to **KLB-SYSTEM EPOXID EP 71**, depending on the temperature.

The ready-to-use and pre-filled primer **KLB-SYSTEM EPOXID EP 71** will be supplied in the correctly measured mixing ratio. The product is characterized by a rapid, shrinkage-free curing.

**KLB-SYSTEM EPOXID EP 71** results in a solid base for all subsequent scattered and non-scattered coatings.

Suitable as primer on all moisture-consistent and dimensionally-stable substrates, such as concrete and cement screed. The product features a very good compressive resistance and can be combined with all kinds of industrial and commercial flooring.

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#### Area of application

- Filling primer and levelling coat before the application of scattered coatings.
- Primer and scratch coat before the application of self-levelling coatings.
- Scratch coat for levelling the depth of roughness.
- Economical solution for small areas.

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#### Product features

- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- ready-to-use
- rapid-setting
- quickly reworkable
- high adhesive strength
- economical

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#### Technical data

Viscosity - Component A+B	1200	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 99	%	KLB method
Density - Component A+B	1.40	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Adhesive tensile strength	> 1.5	N/mm <sup>2</sup>	DIN EN 1542
Shore-hardness D	87	-	DIN 53505 (after 7 days)

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

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#### Build-up of coats

##### Scattered coatings

- Prepare the substrate (e.g. concrete, cement screed or similar) mechanically, preferably by shot-blasting.
- Apply **EP 71** homogeneously with a trowel, a rubber squeegee or a rake. Consumption approx. 0.3 - 0.6 kg/m<sup>2</sup> depending on the substrate's absorbency and roughness. For an even distribution, pull off again with a nylon roller.
- The coating has to be free of pores. Where required, apply an additional resin coat.
- In case no further coatings are applied within 48 hours, the surfaces have to be scattered.

##### Subsequent self-levelling coatings

Experience has shown that the first layer underneath self-levelling coatings has to be applied with an unfilled primer such as **EP 50** or **EP 52 Spezialgrund**. **EP 71** is more suitable on substrates with normal absorbency and has to be applied according to the following proceeding:

- Apply **EP 71** homogeneously with a trowel, a rubber squeegee or a rake. Consumption approx. 0.3 - 0.6 kg/m<sup>2</sup> depending on the substrate's absorbency and roughness. For an even distribution, pull off again with a nylon roller.
- For a pore-free surface before the application of a self-levelling coating, always apply a second primer coat (consumption approx. 0.6 kg/m<sup>2</sup>) or alternatively, a scratch coat (consumption approx. 0.7 - 1.0 kg/m<sup>2</sup>). This can be carried out by

adding quartz sand 0.1/0.3 mm (from 20 to 50 %, depending on layer thickness and temperature).

- In order to avoid the formation of bubbles inside the coating, all pores must be eliminated from the surface to be coated.
- If the recommended processing time limits are not complied with, the surfaces need to be scattered openly with quartz sand, 0.3/0.8 mm, consumption approx. 1 kg/m<sup>2</sup>. Subsequent polyurethane coatings generally have to be scattered with sand. If required, obtain technical advice.

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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 C20/25 (B 25), cement screed CT-C35-F5 (ZE 30), as well as other sufficiently solid substrates. The substrate has to have adequately high strength for the intended occupational use. Coating of 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/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.

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## 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. To prevent mixing errors, empty ("repot") the resin/hardener mixture into a clean container and mix it once again briefly.

In case quartz sand is added to produce a filling compound, this must occur immediately after mixing. For layers thinner than 1 mm, approx. 20 - 30 % of quartz sand 0.1/0.3 mm is recommended. Up to 50 % of sand can be added for thicker (over 2 mm thick) layers.

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## Processing

Process the material immediately after mixing and spread it over the area to be worked on with a spatula, a smoothing trowel, a rubber rake or an edged scraper in a uniform layer. Pull out the resin overlapping so that the surface is evenly wetted. Monitor the consumption. If necessary, redistribute the product with the roller. Following layers always must be applied within the recommended processing time windows. Otherwise, the scratch coat must be sanded if the subsequent coatings are carried out at a later point of time.

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. 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.

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## Cleaning

To clean fresh contamination and tools, use thinner **VR 33** or **VR 24** immediately after use. 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 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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EP71-V1-062016	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR6	
Fire behaviour	E <sub>fl</sub> -s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 6



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