

# KLB-SYSTEM EPOXID

## EP 52 RAPID

Moisture-tolerant, rapid-setting 2-component epoxy resin special primer

### Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AL1016-51	Bucket combo	10.00	30
AL1016-30	Hobbock combo	30.00	12
AL1016-01	Drum combo	600.00	0,5

### Product characteristics

Mixing ratio parts by weight	A : B = 100 : 50
Mixing ratio parts by volume	A : B = 100 : 55
Processing time	10 °C / 50 °F : 30 min. 20 °C / 68 °F : 15 min. 30 °C / 86 °F : 10 min.
Processing temperature	Minimum 5 °C / 41 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 8 - 10 hrs. 20 °C / 68 °F : 4 - 6 hrs. 30 °C / 86 °F : 3 - 4 hrs.
Curing	1 - 2 days for mechanical load at 20 °C / 68 °F 7 days for chemical resistance at 20 °C / 68 °F
Further coatings	While still wet or after curing (4 - 6 hours), but not longer than 24 hours at 20 °C / 68 °F
Consumption	Base coat: approx. 0.3 - 0.4 kg/m <sup>2</sup> Scratch coat: approx. 0.4 - 0.6 kg/m <sup>2</sup>
Shelf life	12 months (originally sealed)

### Product description

**KLB-SYSTEM EPOXID EP 52 RAPID** is a rapid-setting 2-component epoxy resin which is highly moisture tolerable. **KLB-SYSTEM EPOXID EP 52 RAPID** humidifies pale-damp surfaces, blocks water, and leads to an excellent adhesion. It is available as product variant to **KLB-SYSTEM EPOXID EP 52 Spezialgrund** and adjusted with rapid-curing features. The resin combines good adhesion and wettability properties, thus allowing subsequent processing within 4 - 6 hours.

**KLB-SYSTEM EPOXID EP 52 RAPID** is suitable for critical substrates at temperatures above 5 °C / 41 °F. The product is preferably used on concrete and screed if a bonding course needs to be reached rapidly. Because of the medium viscosity, the resin can be used for scratch coats and as a wet bonding course for compound screed. **KLB-SYSTEM EPOXID EP 52 RAPID** offers very good adhesion on sand-blasted steel.

### Area of application

- As base coat before coating pale-damp and chemically wet-cleaned substrates.
- Rapid-setting, highly adhesive primer.
- Solidification of weak substrates.
- Scratch coat for pore-closure and levelling.

## Product features

- Total Solid according to GISCODE ( test method «Deutsche Bauchemie»)
- rapid-setting
- very high adhesion
- strengthening
- all-purpose use
- consistent to hydrolysis and saponification
- hardening on pale-damp surfaces
- free of deleterious substances against varnish

## Technical data

Viscosity - Component A+B	950	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	> 25	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	82	-	DIN 53505 (after 7 days)

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

## Tests

External test certificates are available:

- Classification of the fire behaviour in combination with **EP 296** according to DIN EN 13501-01:2010-01: B<sub>fl</sub>-s1.

### Note:

Please ask for the tested system build-up!

## 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 traces of paint 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. Adhesive tensile strength can be increased on substrates lacking stability because of the reinforcing effect of the material (Conduct pre-trials though!). 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.

Under certain circumstances, **EP 52 RAPID** may be applied onto substrates with increased dampness (up to approx. 6.0 CM-%). In those cases, a double layer of primer is required. If necessary, get advice from KLB technical support.

Observe the information issued by the trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S. Reconstruction beyond the regular requirements - also in terms of the substrate - demands a monitoring of the result, e.g. by conducting a tensile bonding test.

## Mixing

If the components are packed individually, they should 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. To prevent mixing errors, empty ("repot") the resin/hardener mixture into a clean container and mix it once again briefly.

### Producing scratch coats and mortar:

1.0 kg **KLB-SYSTEM EPOXID EP 52 RAPID**  
0.5 - 0.8 kg mixed sand **KLB-Mischsand 2/1**

Premix the resin before adding any additives. The amount of mixed sand depends on the necessary consistency and stability.

---

## Processing

**Base coat:** process the material as a base coat immediately after mixing with a coating knife, trowel, or nylon roller. Apply an evenly sealed coat on the substrate, re-roll if necessary. To achieve a compact surface, apply a second layer or a saturated scratch coat if the substrate is highly absorbent. Generally scatter the fresh coating with approx. 0.8 kg of quartz sand (grain size 0.3/0.8 mm) for optimum adhesion. This is mandatory if the subsequent coating will be applied later than 24 hours after the primer. If substrates with increased moisture are primed in two layers, the first coating must not be scattered.

**Scratch coat:** apply a scratch coat before any further coatings to level the substrate - but also for pore-sealing. Use a trowel, metal, or rubber coating knife. The consistency of the trowelling compound has to be adjusted according to the substrate absorbency, for a material that runs true.

Floor and air temperature must not fall below 5 °C / 41 °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.

**Special remarks:** we advise against the "gumming" of screed/flat joints with pure or with epoxy resin-filled thixotropic agent. In the course of time, these areas will begin to show on the surface. For the application, always use the KLB primer resin in combination with quartz sand e.g. **KLB-Mischsand 2/1**. For this, we recommend adding at least 1 - 3 parts by weight of filler.

---

## Cleaning

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

---

## 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: RE55

**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	
13	
EP52RAPID-V1-022013	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR5	
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 5



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