

KLB-SYSTEM EPOXID

EP 52 RAPID

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

Mixing ratio	Parts by weight	A : B	=	100 : 50
	Parts by volume	A : B	=	100 : 55
Processing time	Temperature	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F
	Time	30 minutes	15 minutes	10 minutes
Processing temperature		Minimum 5 °C / 41 °F (room- and floor-temperature)		
Curing time (Accessibility)	Temperature	10 °C / 50 °F	20 °C / 68 °F	30 °C / 86 °F
	Time	8 - 10 hrs.	4 - 6 hrs.	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 ²		
	Scratch coat	Approx. 0.4 - 0.6 kg/m ²		
Packaging		Bucket-Combi 10 kg, Hobbock-Combi 30 kg		
Shelf life		12 months (originally sealed)		

Usage and Properties

KLB-SYSTEM EPOXID EP 52 RAPID is a rapid-setting, solvent-free, 2-component epoxy resin. Highly moisture tolerable. **KLB-SYSTEM EPOXID EP 52 RAPID** humidifies matt-damp surfaces, blocks water, and leads to excellent adhesion. It is available as an alternative product to **KLB-SYSTEM EPOXID EP 52 Spezialgrund** and is adjusted with rapid curing features. The material combines good adhesion- and wettability properties and allows subsequent processing within 4 - 6 hours.

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

Product Features

- rapid-setting
- very high adhesion
- strain strengthening
- all-purpose application
- resistant to hydrolysis and saponification
- cures even on damp substrates
- solvent-free
- free of deleterious substances against varnish

Area of Application

- Use as base coat before coating pale-damp and chemically wet-cleaned substrate.
- Rapid-setting, strong adhesion base coat.
- Solidification of weakly based substrate.
- Scratch coat for sealing and levelling.

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 C20/25 (B 25), cement screed CT-C35-F5 (ZE 30), as well as other adequately sound surfaces. The substrate must have adequately high strength for the proposed occupational use. Adhesive tensile strength can be increased on stability-lacking substrate because of the reinforcing effect of the material. (Conduct pre-trials though!) 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/mm². 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 on damp (up to approx. 6.5 CM-%) or inadequately sealed substrate. For application on substrate with increased dampness a double-layer base coat is required. Or get advice from KLB-technical support for suitability.

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 requires a performance control, e.g. testing the adhesive tensile strength beside the usual requirements.

Mixing

Single packages of the components need to be measured 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 into the resin completely. 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. To avoid mixing errors it is recommended to empty the resin/hardener-mixture into a clean container and mix briefly once again ("to report").

Producing scratch coats and mortar:

Scratch coats:

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

Before adding additives the resin has to be premixed. The amount of the sand blend to be added depends on the desired texture and consistency.

Processing / Handling

Base coat: Process the material immediately after mixing with a coating knife, spatula, or nylon roller. Apply an evenly closed sealing coat on the substrate, re-roll with roller if necessary. On highly absorbent surfaces a second coat or a saturated scratch coat is recommended for a sealed substrate. While still fresh, scatter the surface with approx. 0.8 kg quartz sand (grain size 0.3/0.8 mm) for optimum adhesion. This is mandatory if the subsequent coatings will be applied later than 24 hours after base coat application. The first coating must not be scattered if substrate with an increased dampness is primed twice.

Scratch coat: For smoothing and completely sealing the substrate apply a scratch coat before the application of subsequent coatings. This can be done with a trowel, metal-, or rubber coating knife. The consistency has to be adjusted according to the absorbency of the substrate, and set so the material may run true.

Floor- and air-temperature must not fall below 5 °C / 41 °F and/or 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. Curing time applies to 20 °C / 68 °F. Lower temperature may increase, higher temperature may decrease the curing and processing time.

Special remarks: We advise against the „gumming“ of screed joints/flat joints with pure or with thixotropic agent filled epoxy resin. In the course of time, these areas will begin to show on the surface. For the application, use always the KLB-Base coats **EP 30** or **EP 55** in combination with quartz sand e.g. **KLB-Mischsand 1** or **KLB-Mischsand 2/1**. For this, we recommend to add 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 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.

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: RE 1

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.

	
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 _{fl} -s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 5

Technical Data*

Viscosity	Components A + B	950	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content		> 99	weight-%	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		> 25	N/mm ²	DIN EN 196/1
Compressive strength		> 70	N/mm ²	DIN EN 196/1
Shore-hardness D		82	-	DIN 53505 (after 7 days)
Adhesive tensile strength		> 1.5	N/mm ²	DIN EN 1542

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

All stated information is based on our previous experience and composition. It is not possible to consider every single case. Please seek advice for your special cases. We guarantee the correct and proper quality of our products. We do not assume responsibility for the work not carried out by us since we have no influence on the processing or processing conditions. We recommend that on-site-trials will be conducted. Our "General Terms and Conditions" apply. With appearance of this new data sheet all prior information loses validity. The updated version is available on our website www.klb-koetztal.com.



Lacke + Beschichtungen GmbH
Günztalstraße 25
FRG-89335 Ichenhausen
Phone +49 (0) 8223-9692-0
Fax +49 (0) 8223-9692-100
www.klb-koetztal.com
info@klb-koetztal.com



Certified according
to ISO 9001.