KLB KÖTZTAL
Lacke + Beschichtungen GmbH

KLB-SYSTEM EPOXID
EP 52 Spezialgrund

Moisture-tolerant, solvent-free 2-component epoxy resin special primer

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK1016-92	Combo can	1.00 kg	240
AK1016-50	Bucket combo	10.00 kg	30
AK1016-30	Hobbock combo	30.00 kg	12
AK1016-01	Drum combo	960.00 kg	0,33

Product characteristics

Mixing ratio parts by weight	A : B = 100 : 60
Mixing ratio parts by volume	A : B = 100 : 66
Processing time	10 °C / 50 °F : 60 min. 20 °C / 68 °F : 40 min. 30 °C / 86 °F : 20 min.
Processing temperature	Minimum 10 °C / 50 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 24 - 28 hrs. 20 °C / 68 °F : 12 - 15 hrs. 30 °C / 86 °F : 8 - 12 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	Base coat: approx. 0.3 - 0.4 kg/m² Scratch coat: approx. 0.4 - 0.6 kg/m² Mortar: approx. 0.150 - 0.300 kg/m² for each mm of layer Adhesion primer for composite screeds: approx. 0.8 - 1.0 kg/m²
Packaging	Combo can 1 kg, Bucket combo 10 kg, Hobbock combo 30 kg, Drum combo 960 kg
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 52 Spezialgrund is a solvent-free 2-component epoxy resin which is highly tolerant to moisture.

KLB-SYSTEM EPOXID EP 52 Spezialgrund humidifies pale-damp substrates, blocks water and results in excellent adhesion.

In combination with the degreaser **KLB-SYSTEM PS 22 Ölentferner,** oily substrates can be cleaned. Afterwards, a base coat can be applied.

Because of the very good penetration capability and high wettability properties, the product stands the test on critical substrates. It particularly offers increased adhesive strength for substrates with lacking solidity. The medium viscosity makes the material suitable for scratch coats and as a wet bonding layer for composite screeds. Good adhesion on sand-blasted steel.

Area of application

- As base coat before coating pale-damp and chemically wet-cleaned substrates.
- As base coat on early age screed and concrete substrates.
- Priming of sand-blasted steel.

- Consolidation of not sufficiently firm substrates.
- Scratch coat for pore-closure and levelling.
- As adhesion primer on composite screeds.

Product features

- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- very high adhesion
- strengthening the substrate
- all-purpose use
- consistent to hydrolysis and saponification
- increased durability to osmosis
- high penetration
- free of deleterious substances against varnish
- hardening on pale-damp surfaces

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/mm²	DIN EN 196/1
Compressive strength	> 70	N/mm²	DIN EN 196/1
Adhesive tensile strength	> 1.5	N/mm²	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.

Included in systems

- System H1 - KLB KITCHEN EP Standard
- System L3 - KLB DECOR STONE-CARPET PU Outdoor
- System H5 - KLB FOOD EP RX Decor

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

Tests

The following external and internal test certificates are available:

- Tested in composite behaviour with **EP 220** according to DAfStb, Parts 2 and 4.
- Suitability against backside moisture exposure according to the maintenance directive (10-2001) by DAfStb.
- Classification of the fire behaviour according to DIN EN 13501-01:2010-01: B_{fl}-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. **EP 52 Spezialgrund** can be used as a bonding layer on pale-damp substrates after degreasing with **PS 22**. Surfaces suitable for priming are concrete C20/25, cement screed CT-C35-F5, 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 significantly increased on stability-lacking substrates because of the strong reinforcing effect of the material. Coating 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/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 Spezialgrund** may be applied on substrates with increased dampness (up to approx. 6.0 CM-%). In those cases, a double layer of primer is required. Permanent exposure to moisture must be avoided. If necessary, get advice from KLB technical support.

EP 52 Spezialgrund can be applied underneath mineral trowel coatings. To do so, the prepared substrate is primed and scattered in excess with quartz sand 0.7/1.2 mm.

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 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:

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

Before adding any additives, the resin must be premixed, only then is added the supplement. 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 squeegee, trowel, or nylon roller. Apply an evenly sealed coat on the substrate, re-roll after some time if necessary. To achieve a dense surface, apply a second layer or a saturated scratch coat if the substrate is highly absorbent. Scatter the fresh coating with approx. 0.8 kg of fire-dried quartz sand (grain size 0.3/0.8 mm) for optimum adhesion. This is mandatory if the subsequent coating will be applied later than 36 hours after the primer. For an increased resistance to osmosis, it is necessary to apply two layers of primer or primer plus scratch coat. Do not scatter the first base coat and work within the recommended time frame.

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

Adhesion primer for composite screeds: proceed with a substrate prepration, preferably by shot-blasting, then vacuum it off thoroughly. Apply **EP 52 Spezialgrund** as wet bonding layer for the application of screeds (for increased roughness depth, prime beforehand and scatter with quartz sand), consumption approx. 0.8 - 1.0 kg/ m². The material should be applied so far that the screed can be laid fresh in fresh (or wet-in-wet) into the still fresh bonding layer.

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.

Special remarks: we advise against the "resinification“ of screed/flat joints and break-outs in the screed or concrete with pure epoxy resin or set with suspending agent. For the application, always use the KLB primer resin in combination with quartz sand e.g. **KLB-Mischsand 1** or **KLB-Mischsand 2/**1. For this, we recommend adding at least 1 - 3 parts by weight of filler to 1 parts by weight of primer; if necessary, 0.2 - 2 % of suspending agent can be added to adjust the consistency. Intermediate grinding should be carried out to improve adhesion to subsequent coats.

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: 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

CE

1119
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen
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EP52-V1-022013
DIN EN 1504-2:2004
Surface protection products-coating DIN EN 1504-2: ZA.1d,ZA.1f,ZA.1g

Abrasion resistance	complied with
CO_2-permeability	SD > 50m
Water vapour permeability	Class III
Capillary water absorbtion and water permeability	< 0.1 kg/m²*h0.5
Resistance to increased chemical excavation	complied with
Resistance to impact	Class I
Tear-test for adhesive strength evaluation	> 1.5 N/mm²
Fire behaviour	C_{fl}-s1

CE

KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen
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EP52-V1-022013
DIN EN 13813:2003-01
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR7

Fire behaviour	C_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0.5
Adhesive tensile strength	B 1.5
Impact resistance	IR 7

Please consider the latest version of this product information on our website.

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