KLB KÖTZTAL
Lacke+Beschichtungen GmbH

# KLB-SYSTEM EPOXY
# 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 (max. allowed) | 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 | Temperature | 10 °C / 50 °F | 20 °C / 68 °F | 30 °C / 86 °F |
| (Accessibility) | Time | 8 - 10 hrs | 4 - 6 hrs | 3 - 4 hrs |
| Curing | | 1 - 2 days at 20 °C / 68 °F for mechanical load | | |
| | | 7 days at 20 °C / 68 °F for chemical resistance | | |
| Further Coatings | | While still wet or after curing (4 - 6 hours), | | |
| | | but not longer than 24 hours at 20 °C / 68 °F | | |
| Consumption | Primer | Approx. 0.3 - 0.4 kg/m² | | |
| | Scratch Coat | Approx. 0.4 - 0.6 kg/m² | | |
| Packaging | | Combi-Bucket 10 kg, Hobbock-Combi 30 kg | | |
| Shelf Life | | 12 months (originally sealed) | | |

## Usage and Properties

**KLB-SYSTEM EPOXY EP 52 RAPID** is a rapid setting, solvent-free, 2-Component-Epoxy-Resin. Highly moisture resistant. **KLB-SYSTEM EPOXY EP 52 RAPID** may be applied on pale-damp surfaces to displace water, resulting in excellent adhesion. Available as an alternative product for **KLB-SYSTEM EPOXY EP 52 Special Primer** adjusted with rapid curing features. It combines good adhesion- and wetting power properties with rapid curing and allows follow-up work within 4 - 6 hours.

**KLB-SYSTEM EPOXY EP 52 RAPID** is suitable for critical substrates 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 its medium viscosity the material is suitable for scratch coats and as a wet bonding course for bonded screed. Very good adhesion on sand-blasted steel with **KLB-SYSTEM EPOXY EP 52 RAPID**.

## Product Features

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

## Area of Application

- Use as base coat before coating pale-damp and wet, chemically cleaned substrates.
- Rapid-setting, strong adhesion base coat.
- Hardening of inadequately strengthened 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 C 20/25 (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 strong hardening effect of the material. (Conduct a trial!) 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/mm$^2$. 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 dense substrates. For application on substrates 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 final 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. 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.

Producing scratch coats:

**Scratch coats:**

| | |
|---|---|
| 1.0 kg | **KLB-SYSTEM EPOXY EP 52 RAPID** |
| 0.5 - 0.8 kg | **KLB-Sand Blend 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

**Prime Coat:** Processing the material as a base coat takes place immediately after mixing using a rake, trowel or nylon-roller. Apply an evenly closed sealing coat on the substrate, rework with roller if necessary. On highly absorbent surfaces a second coat or a saturated scratch coat is recommended to achieve a leak-proof 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 priming. The first coating must not be scattered if substrates with an increased dampness are primed twice.

**Scratch Coat:** For smoothing and completely sealing the substrate apply a scratch coat before subsequent coatings. This can be done with a trowel, metal- or rubber-rake. 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.

## 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.

CE

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**08**

**EN 13813-SR-B1.5-AR0.5-IR5**

Synthetic Resin Screed Mortar/ - Coatings for interior areas, build-up according to product information

| | |
|---|---|
| Fire behaviour: | NPD |
| Release of corrosive substances: | SR |
| Water permeability: | NPD |
| Abrasion resistance according to BCA: | AR 0.5 |
| Adhesive tensile strength | B 1.5 |
| Resistance to impact: | IR 5 |
| Subsonic noise: | NPD |
| Sound absorption: | NPD |
| Thermal insulation: | NPD |
| Chemical resistance: | NPD |

**NPD =** No Performance Determined

## Technical Data*

| | | | | |
|---|---|---|---|---|
| Viscosity | Comp. A+B | 950 | mPas | DIN EN ISO 3219 (23 °C / 73.4 °F) |
| Solid Contents | | > 99 | weight-% | KLB-Method |
| Specific Weight | Comp. 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 |
| Comprehensive Strength | | > 70 | N/mm² | DIN EN 196/1 |
| Shore-Hardness D | | 82 | - | DIN 53505 (after 7 days) |
| Adhesive Tensile Strength | | > 1.5 | N/mm² | DIN EN 1542 |

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


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