KLB KÖTZTAL
Lacke + Beschichtungen GmbH

# KLB-SYSTEM EPOXID
# EP 740 E

Semi gloss, coloured 2-component epoxy resin sealer

| | | | | |
|---|---|---|---|---|
| Mixing ratio | Parts by weight | A : B = | 1 : 5 | |
| | Parts by volume | A : B = | 1 : 4.15 | |
| Processing time | Temperature | 15 °C / 59 °F | 20 °C / 68 °F | 30 °C / 86 °F |
| | Time | 80 minutes | 70 minutes | 40 minutes |
| Processing temperature | | Minimum 15 °C / 59 °F (room- and floor-temperature) | | |
| Curing time | Temperature | 15 °C / 59 °F | 20 °C / 68 °F | 30 °C / 86 °F |
| (Accessibility) | Time | 24 - 36 hrs. | 18 - 24 hrs. | 14 - 18 hrs. |
| Curing | | 2 - 3 days for mechanical load at 20 °C / 68 °F | | |
| | | 7 days for chemical resistance at 20 °C / 68 °F | | |
| Further coatings | | After 18 - 24 hours, but not longer than 48 hours at 20° C / 68 °F | | |
| Consumption | | Approx. 0.200 - 0.250 kg/m² for each layer | | |
| Amount of coats | | Usually 2 coats | | |
| Coat thickness | | 0.2 - 0.4 mm when applied in 2 layers | | |
| Packaging | | Bucket-Combi 10 kg, Hobbock-Combi 25 kg | | |
| Colours | | KLB-Standard Colours – see chart. Other colours upon request! | | |
| Shelf life | | 12 months (originally sealed) – **Protect from frost!** | | |

## Usage and Properties

**KLB SYSTEM EPOXID EP 740 E** is a 2-component, water-emulsified, pigmented epoxy resin sealer.

**KLB-SYSTEM EPOXID EP 740 E** is especially suitable as sealer on concrete, cement screed, magnesia, and mastic asphalt, as well as for the reconstruction of older areas, due to its excellent adhesion on different, even older substrates. The product may easily processed with a roller, offers high coverage, and due to its consistency the product is pleasant to work with and environmentally sound. The application in 2 layers results in a durable and optically appealing sealing coat. The product cures by drying and chemical cross-linking to a durable, robust film with good adhesion.

**KLB-SYSTEM EPOXID EP 740 E** results in a hard and tough, almost abrasion resistant film, physiologically harmless with good resistance to aqueous solutions, diluted acids and bases, as well as motor oil and fuel oil. The water vapour permeability allows the sealing of substrate sensitive to water as well as excessively damp substrate.

**KLB-SYSTEM EPOXID EP 740 E** results in semi gloss surfaces.

The product has been tested in combination with **KLB-SYSTEM EPOXID EP 727 E, KLB-SYSTEM EPOXID EP 782 E Spachtelgrund,** and **KLB-SYSTEM EPOXID EP 785 HS** according to the AgBB testing standards of the DIBt® and classified as low-emission.

## Product Features

- environmentally friendly
- convenient application
- low odour
- tested, low emission quality
- water vapour permeable
- excellent adhesion
- consistent surface finish
- excellent covering properties
- results in appealing surfaces

## Testing

External test certificates are available:

- Slip resistance grade R10 possible, according to DIN 51130 and BGR 181.
- AgBB-tested and DIBt®-accredited.
- Water vapour permeability, according to DIN EN ISO 7783-2.

**Note:** Please ask for the tested system structure!

## Area of Application

- **EP 740 E** is used as sealer on concrete, cement-, anhydrite-, and mastic asphalt screed and magnesia coatings.
- As sealer on water vapour permeable coatings like **EP 785 HS.**
- Sealing and thin coats for interior areas, like e.g. commercially and industrially used areas, basements, garages, storage rooms and so on.
- Re-working on older epoxy resin substrate.
- Vertical areas and walls.

## Build-up of Coats

- Grind the substrate and vacuum off thoroughly.
- Highly absorbent substrate requires an additional base coat using **EP 727 E,** consumption approx. 0.140 - 0.160 kg/m².
- Apply the first sealing coat **EP 740 E,** diluted with 5 - 10 % of water, with a nylon roller.
- Apply the second sealing coat **EP 740 E** with a nylon roller using criss-cross strokes.

## 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. 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. The surface to be coated should be prepared mechanically. Diamond grinding is especially recommended for sealing coats, resulting in a smooth surface. Shotblasting is especially suitable, requiring a scratch coat with **EP 50 / KLB-Mischsand 2/1** (1 : 0.5 parts by weight). Cleaning older substrates is necessary before mechanical preparation. When sealing older synthetic resin surfaces test for sufficient adhesion. Conduct a trial if in doubt.

## Mixing

Combi-trading units will be supplied in the correctly measured mixing ratio. Component B has sufficient volume for the entire trading unit. Decant component A into the hardener compound. 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. If water will be added mix components A + B completely first. Then add water and homogenize once again completey. To avoid mixing errors it is recommended to empty the resin/hardener-mixture into a clean container and mix briefly once again. Stir up the single components for partial withdrawals and weigh for the exact mixing ratio.

**Processing time max. 70 minutes at 20 °C / 68 °F (see chart "Processing time").**
**Note:** End of pot-life is not visible!

## Processing / Handling

As with all reactive resins the mixture should be processed immediately. Apply with a lint-free velour-sealing-roller and stripping grate. Divide working areas before starting work to avoid multiple applications and shoulders. It is recommended that larger areas will be processed by at least 2 people. One or more workers should apply the material in one direction and another person distributes the fresh sealing material crossways (in a 90°-angle). A 50 cm wide roller should be used on larger areas. The roller for distribution should be soaked with the material and should only be used for distribution, never for the application of the sealer. Always work „fresh-in-fresh" and ensure an optimum distribution. Avoid ponding due to possible blooming.

Floor- and air-temperature must not fall below 15 °C / 59 °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. Exposure to water has to be avoided for the first 7 days. Curing time applies to 20 °C / 68 °F. Lower temperature may increase, higher temperature may decrease the curing and processing time. If working conditions are not complied with, deviations in the described properties may occur in the end product.

## Cleaning

To clean tools and fresh contamination use water immediately. Hardened material can only be removed mechanically.

## Claning and maintenance of sealed coatings

For cleaning note the recommendations for care and maintenance. For the warranty of interlayer adhesion do not apply any KLB-Floor care products on aqueous sealers within the first 7 days (20 °C / 68 °F).

In special cases, especially with vibrant colours, the cleaning might cause a loss of colour. This can be avoided by laying an additional transparent sealing, e.g. **EP 705 E.** If necessary, ask for a consultancy.

## 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.

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EP740E-V1-022013

**DIN EN 13813:2003-01**

Synthetic resin screed mortar
DIN EN 13813: SR-B1.5-AR0.5-IR5

| | |
|---|---|
| Fire behaviour | $B_{fl}$-s1 |
| Emission of corrosive substances | SR |
| Wear resistance BCA | AR 0.5 |
| Adhesive tensile strength | B 1.5 |
| Impact resistance | IR 5 |

## 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 labelled on the containers!

GISCODE: RE 1

**Indication of VOC-Content:**
(EG-Regulation 2004/42)
Maximum Permissible Value 140 g/l (2010,II,j/wb):
Ready-for-use product contains < 140 g/l VOC.

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**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 II |
| Capillary water absorbtion and water permeability | < 0.1 kg/m²*h0.5 |
| Resistance to increased chemical excavation | complied with |
| Impact resistance | Class I |
| Tear-test for adhesive strength evaluation | > 1.5 N/mm² |
| Fire behaviour | $B_{fl}$-s1 |

## Technical Data*

| | | | | |
|---|---|---|---|---|
| Viscosity | Components A + B | Approx. 1000 | mPas | DIN EN ISO 3219 (23 °C / 73.4 °F) |
| Solid content | | > 63 | % | KLB-Method |
| Flashpoint | | Not flammable | | DIN 51755 |
| Density | Components A + B | 1.32 | kg/l | DIN EN ISO 2811-2 (20 °C / 68 °F) |
| Abrasion (Taber Abraser) | | < 70 | mg | ASTM D4060 |
| Diffusion resistance factor | | 3100 | - | DIN EN ISO 12572 |
| Diffusion equiv. air layer thickness sd (0.5 mm) | | 1.6 | m | DIN EN ISO 7783-2 |
| Brightness (85°) | | 20 - 30 | - | DIN 67530 |

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

## VOC-Contents

The product complies with the high requirements to low VOC-contents, as required for sustainable construction. Therefore these values exceed by far the European Union directive 2004/42/EG (decopaint-directive).

| | Reference to* | Max. Value | Actual Content | |
|---|---|---|---|---|
| **Directive 2004/42/EG** Decopaint-directive | Component A | ≤ 140 | 0 | g/l |
| | Component B | ≤ 140 | 1 | g/l |
| **DGNB** German Sustainable Building Council | Components A + B | < 3 | 0.9 | % |
| **climate:active** Climate protection initiative of the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water | Components A + B | < 3 | 0.9 | % |
| **LEED** Leadership in Energy and Environmental Design | Components A + B | < 100 | 11 | g/l |
| **Minergie Eco®** Quality standard of the “Minergie society “, Switzerland | Components A + B | < 1 (< 2) | 0.9 | % |

(* According to the decopaint-directive single components are used for the calculation. For the quality rating system for sustainable construction the mixture of both components in the correct mixing ratio is the determining factor.)

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