KLB KÖTZTAL
Lacke + Beschichtungen GmbH

KLB-SYSTEM EPOXID
EP 742 E

Silk-matt, low-emission, pigmented 2-component epoxy resin emulsion sealer

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK2798-50	Bucket combo	10.00 kg	30

Product characteristics

Mixing ratio parts by weight	A : B = 1 : 5
Mixing ratio parts by volume	A : B = 1 : 4
Processing time	15 °C / 59 °F : 50 min. 20 °C / 68 °F : 40 min. 30 °C / 86 °F : 30 min.
Processing temperature	Minimum 15 °C / 59 °F - Maximum 30 °C / 86 °F (room and floor temperature)
Curing time (accessibility)	15 °C / 59 °F : 24 - 36 hrs. 20 °C / 68 °F : 18 - 24 hrs. 30 °C / 86 °F : 14 - 18 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 18 - 24 hours, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	Approx. 0.200 - 0.250 kg/m²
Layers	Usually 2 layers
Layer thickness	0.2 - 0,4 mm
Packaging	Bucket combo 10 kg
Colours	See colour chart for KLB standard colours, special colours available from 10 kg!
Shelf life	12 months (originally sealed) - **Protect from frost!**

Product description

KLB-SYSTEM EPOXID EP 742 E is a water-emulsified, low-emission and glossy 2-component epoxy resin sealer, which is available in standard colours and also special colours from a quantity of 10 kg. The product is tested according to the AgBB standards and certified with EMICODE® EC 1^{PLUS} ; thus suitable for use in recreation rooms.

KLB-SYSTEM EPOXID EP 742 E is an all-purpose sealer and has good adherence on diverse substrates such as concrete, cement screed, magnesia screed and mastic asphalt. The product can used as well for reconstructing older substrates.

KLB-SYSTEM EPOXID EP 742 E can be easily applied with a velours roller, and results, when applied in 2 layers, in a durable and optically attractive floor sealing. It also presents a good resistance against saline solutions, diluted acids and alkalis, as well as motor and heating oils.

KLB-SYSTEM EPOXID EP 742 E is convenient and environmentally friendly to use. The product cures by drying and chemical cross-linking to form a tough, durable, largely abrasion-resistant film that is physiologically harmless. The water vapour

permeability also enables the sealing of cementitious substrates that have not yet reached equilibrium moisture.

Note: due to a colour-dependent difference in gloss level between **KLB-SYSTEM EPOXID EP 742 E** and **KLB-SYSTEM EPOXID EP 740 E**, surfaces or also connecting surfaces may only be carried out with the same product.

Area of application

- **EP 742 E** is used as a sealer for concrete, cement, anhydrite and mastic asphalt screeds, as well as magnesia screeds.
- As sealer on water vapour-permeable coatings like **EP 785 HS**.
- As sealer and thin coat for the interior such as commercially or industrially used areas subject to light stress, e.g. basements, garages, storage rooms, etc.
- For renovation of older synthetic resin substrates after adequate preparation.
- Vertical wall and ceiling surfaces.

Product features

- low-emission formulation
- EMICODE® EC 1PLUS certified
- Total Solid according to GISCODE
- odorless
- environmentally friendly
- water vapour-permeable
- very high adhesion
- easy application
- even surface
- silk-matt
- high covering power

Technical data

Viscosity - Component A+B	600 - 700	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 60	%	KLB method
Density - Component A+B	1.25	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Abrasion (Taber Abraser)	< 70	mg	ASTM D4060 (CS10/1000)
Flashpoint	Non combustible	-	DIN 51755
Gloss level	15 - 25 at 85°	-	DIN 67530
Diffusion resistance rate	3100	-	DIN EN ISO 12572
Water vapour diffusion-equivalent air layer thickness	(0.5 mm) 1.6	m	DIN EN ISO 7783-2

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

Suitable coatings

The following self-levelling coatings can be sealed with **EP 742 E**:

EP 200 VF, EP 202, EP 213, EP 213 RAPID, EP 216 Universal, EP 216 RAPID, EP 220, PU 405, PU 410, PU 420, PU 421, PU 425 Comfort.

With other coatings, adhesion must be tested. The adhesion can anyway be improved by grinding the surface.

Tests

The following external test certificates are available:

- Slip-resistant scattered coating in R11 V4 or R12 V4 possible, according to DIN 51130 and BGR 181 or DIN EN 16165.
- Slip-resistance grade R10 possible, according to DIN EN 16165.
- Certified as low-emission according to the EMICODE® EC 1^{PLUS} label. Compliant with AgBB for recreation rooms.

Note:

Please ask for the tested system build-up!

Build-up of coats

Sufficiently even, absorbent, mineral substrates

- Grind the substrate and vacuum thoroughly.
- Highly absorbent and weak substrates should first be primed with **EP 727 E**, consumption approx. 0.120 - 0.200 kg/m².
- Then apply the sealer **EP 742 E** in layers with a velours roller, consumption per layer approx. 0.200 - 0.250 kg/m². Intermediate drying after the first coat, depending on temperature approx. 18 to 24 hours. The first layer of the sealing can be diluted with up to 5 % of water.

Insufficiently even, absorbent, mineral substrates with blasted or rough surfaces

- Substrate must be clean and mechanically prepared.
- On substrates with an increased roughness it is possible to apply a scratch coat with **EP 57** and mixed sand **KLB-Mischsand 2/1**, mixing ratio 1 : 0.5 to 0.8 parts by weight. Consumption approx. 0.8 - 1.0 kg/m².
- Then apply the sealer **EP 742 E** in layers with a velours roller, consumption per layer approx. 0.200 - 0.250 kg/m². Intermediate drying after the first coat, depending on temperature approx. 18 to 24 hours. The first layer of the sealing can be diluted with up to 5 % of water.

Non-absorbent substrates such as e.g. synthetic resin coverings

- Clean, grind and vacuum the substrate thoroughly.
- Then apply the sealer **EP 742 E** in layers with a velours roller, consumption per layer approx. 0.200 - 0.250 kg/m². Intermediate drying after the first coat, depending on temperature approx. 18 to 24 hours. The first layer of the sealing can be diluted with up to 5 % of water.

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 paint residues should be removed with suitable measures. Observe the information issued by the trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S. The substrates to be coated should be prepared mechanically. Diamond grinding is particularly suitable for sealing. It is important to have a smooth surface without weakly adhering components. Shot-blasting is ideal for substrate preparation, whereby a rougher substrate then results, which requires additional roughness compensation. It is then recommended to apply a scratch coat with **EP 57** or **EP 50** and mixed sand **KLB-Mischsand 2/1**, mixing ratio 1.0 : 0.5 to 0.8 parts by weight. Old substrates must be cleaned before any mechanical preparation. If old synthetic resin surfaces need to be sealed, it must be ensured that sufficient adhesion is achieved. In case of doubt, we recommend testing on a trial surface.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component B has sufficient volume for the entire packaging unit. Empty all of component A into the hardener compound B. Blend with a slow speed mixer

(200 - 400 r/pm) for at least 2 - 3 minutes until a homogeneous, streak-free compound forms. If diluting with water, first mix components A and B completely, then add water and homogenise once again. The added water must be stirred in thoroughly. To prevent mixing errors, empty ("repot") the entire resin/ hardener mixture into a clean container and mix it once again briefly to ensure complete homogenisation.

Processing time max. 40 minutes at 20 °C / 68 °F (see chart “Processing time”).
Note: end of pot life is not visible!

Processing

As with all reactive resin systems, processing should take place immediately after mixing using a lint-free velours sealing roller. Typically, work areas are divided up beforehand to avoid duplicate application and haphazard overlapping. For larger areas, it is recommended that 2 or more people carry out the application. One or more persons apply the material in one direction, while another person distributes the fresh sealing material in a crosswise motion (90° angle).

Use a 50 cm wide roller on larger surfaces for the final re-rolling. The distribution roller should be saturated/wetted with material and only be used for distribution, never for application. Always work “fresh-in-fresh” and ensure optimum distribution of the material. Avoid ponding, otherwise fogging may occur.

Floor and air temperature must not fall below 15 °C / 59 °F and humidity must not exceed 75 %. The recommended climatic conditions must also be maintained during curing or drying. 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. Please take into account that the drying of the sealant results in an increase in air humidity, therefore do not seal in critical humidity ranges. If a dew-point situation arises, regular curing and drying will not be possible with hardening problems and spotting to occur. Exposure to water should be avoided during the first 7 days. 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:

Coloured products should always belong to the same batch and be used on the same surface, as slight colour deviations in different batches cannot be excluded due to the raw material. The batch number is indicated on the container labels. For certain colour shades - especially white, yellow and orange or pastel light shades - the recommended layer thicknesses must be observed to ensure opacity. The top sealer must always be applied in the same colour as the underlying coating. For other colour tone combinations, please consult us.

Colour changes, loss of gloss or yellowing may occur with certain light and weather influences and with prolonged and intensive use.

To prevent wear and tear, suitable chair castors or floor protection mats must be used with swivel chairs/office swivel chairs or other wheeled furniture.

Cleaning

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

Separate cleaning and care recommendations are available for cleaning floors produced with KLB coatings and sealers. To ensure intercoat adhesion, water-based sealers may be grouted with KLB products after 7 days at the earliest (at 20 °C / 68 °F).

Storage

Store in dry and 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: RE20

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.

CE marking

CE

KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 D-89335 Ichenhausen; Germany	
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EP742E-V2-012020	
DIN EN 13813:2003-01	
Synthetic resin screed material DIN EN 13813: SR-B1,5-AR0,5-IR6	
Fire behaviour	E_{fl}-s1
Emission of corrosive substances	SR
BCA abrasion resistance	AR 0,5
Adhesive tensile strength	B 1,5
Impact resistance	IR 6

VOC content

The product complies with the high requirements to low VOC contents, as required for sustainable construction. Therefore, these values are well below the limits set by the European Union directive 2004/42/EG (Decopaint Directive).

	Limit value	Actual content	
Decopaint Directive 2004/42/EG - Component A	< 140	0	g/l
Decopaint Directive 2004/42/EG - Component B	< 140	0	g/l
DGNB - Components A + B	< 3	0	%
klima:aktiv – Components A + B	< 3	0	%
LEED - Components A + B	< 100	0	g/l
Minergie ECO ® - Components A + B	< 1 (< 2)	0	%

(According to the Decopaint directive, single components are used for calculation. In the sustainable building rating systems, the mixture of both components in the correct mixing ratio is the determining factor.)

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

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