KLB KÖTZTAL
Lacke+Beschichtungen GmbH

KLB-SYSTEM EPOXID
EP 705 E

Transparent 2-component epoxy resin emulsion sealer for matt surfaces, low-emission according to AgBB

Packaging units



Article no.	Packaging	Content (kg)	Units/pallet
AK2777-70	Bucket combo	5.00 kg	45
AK2777-50	Bucket combo	10.00 kg	30
AK2777-30	Hobbock combo	25.00 kg	12

Product characteristics

Mixing ratio parts by weight	A : B = 2 : 3
Mixing ratio parts by volume	A : B = 100 : 156
Processing time	15 °C / 59 °F : 65 minutes 20 °C / 68 °F : 60 minutes 30 °C / 86 °F : 45 minutes
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	0.120 - 0.180 kg/m²
Colours	Transparent
Shelf life	12 months (originally sealed) – **Protect from frost!**

Product description

KLB-SYSTEM EPOXID EP 705 E is a 2-component epoxy resin sealer, low-emission according to the AgBB principles.

KLB-SYSTEM EPOXID EP 705 E is used as a transparent, matt top coat for reactive resin coatings, also decorative flakes may be added.

Alternatively, **KLB-SYSTEM EPOXID EP 706 E** can be used as opaque and coloured sealer on epoxy resin coatings.

The sealing results in uniform, matt surfaces that give the floors an even, nice appearance. "Mirror effects" of glossy coatings due to light scattering from the surface are significantly reduced.

EP 705 E may replace solvent-based sealers in many areas and thus represents an environmentally friendly alternative which is also convenient to work with. Use short-piled rollers in a crosswise motion. Aligned curing results in very even surfaces.

EP 705 E has good adhesion to various substrates and can therefore also be used - after adhesion testing - on old coatings.

EP 705 E - R10 is a special top sealer for producing slip-resistant surfaces. It has been tested according to DIN 51130/BGR 181 and rated with slip resistance grade R10. Processing the epoxy sealer is done with a lint-free velours roller and, after curing, results in an even surface in a defined slip resistance grade of R10.

The product cures by drying and chemical cross-linking to form durable, robust films with good adhesion. Fully cross-linked coatings are resistant to many chemicals, but especially to water, salts, diluted alkalis and bases, oils as well as many different solvents.

The sealer is certified according to the “Indoor Air Comfort Gold” and meets the requirements for a sustainable building certification according to DGNB, LEED or BREEAM. The “Indoor Air Comfort” product certification sets the highest requirements for the emission of volatile organic compounds and meets not only the German requirements of AgBB or ABG, but also the emissions regulations of many other European countries.

Note: sealed surfaces offer only limited resistance to mechanical load. Material handling equipment may affect or destroy them Their use is therefore only suitable to a limited extent. In areas with high and frequent wet exposure and also with chemicals, solvent-based sealers would be more appropriate.

Area of application

- **EP 705 E** is used as a transparent matt sealer on high-quality decorative and industrial epoxy coatings.
- As matt sealer on vapour-permeable coatings like **EP 785 HS** with or without adding decorative flakes.
- Use as finish for tempered cement coatings or grinded concrete surfaces onto the primer **EP 727 E** (trials are urgently recommended).
- **EP 705 E** may be used on old substrates.

Product features

- tested, low-emission quality
- Total Solid according to GISCODE
- environmentally friendly
- odorless
- very economical
- even surface
- easy application
- decorative, appealing surface
- matt

Technical data

Viscosity - Component A+B	650 - 800	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 40	%	KLB method
Density - Component A+B	1.07	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Abrasion (Taber Abraser)	< 40	mg	ASTM D4060 (CS10/1000)
Flashpoint	Not flammable	-	DIN 51755
Gloss level	10 at 85°	-	DIN 67530

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

Included in systems

- System C1KLB LOW-VOC EP Standard
- System C4KLB LOW-VOC PHARMA EP Screed
- System L1KLB DECOR STONE-CARPET EP Indoor

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

Suitable coatings

The following self-levelling coatings can be sealed with **EP 705 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

External test certificates are available:

- For **EP 705 E**, slip-resistance grade R11 in combination with **RHX 75** possible, according to DIN 51130 and BGR 181.
- Certified as low-emission according to Eurofins "Indoor Air Comfort Gold“. Compliant with AgBB and DIBt® for recreation rooms.
- Water vapour permeability according to DIN EN ISO 7783-2.

Note:

Please ask for the tested system build-up!

Substrate

The substrate to be coated must be dry and free from any dirt. The sealer is typically applied as the last layer when creating a floor covering. It is therefore necessary to ensure that the previous layer is not already soiled. The optimum time for sealing is reached when the previously applied epoxy resin layer has hardened to a sufficiently stable film, but is not yet cured completely. In standard systems, this is the case after 12 hours at the earliest and after 36 hours at the latest at 20 °C / 68 °F air and soil temperature. Please observe the instructions of the coating to be sealed. If sealers are applied later, it must be tested that sufficient adhesion is achieved. Old, hardened layers may be subsequently sealed because of the good adhesion of the material. Required is an accurate cleaning and grinding of the entire surface. If old synthetic resin substrates are being sealed, it is necessary to check that sufficient adhesion is achieved. For a change in colour, apply at least 2 coats to achieve an even coverage. Weakly covering colours like yellow and white may require further applications.

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. Partial quantities need to be weighed out in the right mixing ratio after having stirred up the single components. 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 entire resin/hardener mixture into a clean container and mix it once again briefly.

Processing time max. 60 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 rubber blade (toothing 1 mm) or 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. For sealing, keep within a coordinated work rhythm – criss-cross rolling may not be carried out too late. On large areas, this should be done directly on the surface, wearing blunt nail or football shoes. Always work “fresh-in-fresh” and ensure optimum distribution of the material. Avoid ponding, otherwise clouding or fogging may occur due to the higher layer thicknesses. Pay attention to a clean working environment. Use rollers suitable for sealing. Enter the surface with clean shoes only. Maintain the recommended drying conditions during curing!

Floor and air temperature must not fall below 15 °C / 59 °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 poblems and spotting to occur. Exposure to water and chemicals 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:

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).

Note: in special cases - especially with vibrant colours - the cleaning might cause a loss of colour. This can be avoided by applying an additional transparent sealing, e.g. **EP 705 E** or **EP 705 E - R10**. If necessary, ask for a consultancy.

Storage

Store in dry and 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 FRG-89335 Ichenhausen	
15	
EP705E/EP705E-R10-V2-072015	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR14	
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 14

VOC content

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).

	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	g/l
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.

All stated information is based on our experience and technical preparation. We guarantee the correct and proper quality of our products. We do not assume any responsibility for the work not carried out by us, since we have no influence on the processing or processing conditions. We recommend on-site trials to be conducted in individual cases. With the publication of this new KLB product information, all prior information loses validity. The latest version is available electronically on our website www.klb-koetztal.com. In addition, our "General Terms and Conditions“ apply.

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