KLB-SYSTEM EPOXID
EP 706 E

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

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK2778-50	Bucket combo	10.00	33
AK2778-70	Bucket combo	5.00	39



Product characteristics

Mixing ratio parts by weight	A : B = 2 : 3
Mixing ratio parts by volume	A : B = 100 : 144
Processing time	15 °C / 59 °F : 65 min. 20 °C / 68 °F : 60 min. 30 °C / 86 °F : 45 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 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	0.120 - 0.180 kg/m² for each application
Layers	On coatings of the same colour, one application is usual; for critical colours or colour changes, 2 - 3 applications are necessary!
Colours	KLB-Standard Colours – see chart. Other colours upon request!
Shelf life	12 months (originally sealed) – **Protect from frost!**

Product description

KLB-SYSTEM EPOXID EP 706 E is a 2-component epoxy resin sealer, low-emission according to the AgBB principles.

KLB-SYSTEM EPOXID EP 706 E is used as a pigmented, matt top coat for reactive resin coatings. Alternatively, **KLB-SYSTEM EPOXID EP 705 E** can be used as transparent variant for epoxy resin coatings, also decorative flakes may be added.

The sealing results in uniform, silk-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 706 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 706 E has good adhesion to various substrates and can therefore also be used - after adhesion testing - on old coatings.

EP 706 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 appropriat

Area of application

- **EP 706 E** is used as an opaque matt sealer on high-quality decorative and industrial epoxy coatings.
- As matt sealer on vapour-permeable coatings like **EP 785 HS**.
- Use as finish for tempered cement coatings or grinded concrete surfaces onto the primer **EP 727 E** (trials are urgently recommended).
- **EP 706 E** may be used on old substrates.

Product features

- Total Solid according to GISCODE
- low-emission according to AgBB
- environmentally friendly
- convenient processing
- odorless
- results in even surfaces
- reduces the gloss
- silk-matt
- adds pleasant appearance to the coatings
- very economical

Technical data

Viscosity - Components A+B	750 - 900	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 45	%	KLB method
Density - Components A+B	1.10	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Abrasion (Taber Abraser)	< 50	mg	ASTM D4060 (CS10/1000)
Flashpoint	Not flammable	-	DIN 51755
Gloss level	35 at 85°	-	DIN 67530

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 706 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 706 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 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: 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.

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. **PU 805 E**. The products of the "Clean" range must not be sealed transparently. 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	
EP706E/EP706E-R10-V2-072015	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR16	
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 16

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	
Directive 2004/42/EG - Component A	< 140	0	g/l
Directive 2004/42/EG - Component B	< 140	0	g/l
DGNB - Components A + B	< 3	0	%
Klima:aktiv	< 3	0	%
LEED - Components A + B	< 100	0	g/l
Minergie ECO(R) - Components A + B	< 1 (< 2)	0	%

(According to the decopaint directive, single components are used for the calculation. For the quality rating systems for sustainable construction, 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. With appearance of this new KLB product information, all prior information loses validity. The updated version is available on our website www.klb-koetztal.com. In addition, our "General Terms and Conditions" apply.