

KLB-SYSTEM EPOXID EP 705 E

Clear 2-component epoxy resin emulsion sealer for a silk-matt surface, low-emission according to AgBB

EP 706 E

Pigmented 2-component epoxy resin emulsion sealer for a silk-matt surface, low-emission according to AgBB

KLB-SYSTEM EPOXID EP 705 E-R10

Clear and slip resistant 2-component epoxy resin emulsion sealer for a silk-matt surface, low-emission according to AgBB

EP 706 E-R10

Pigmented and slip resistant 2-component epoxy resin emulsion sealer for a silk-matt surface, low-emission according to AgBB



Mixing ratio	EP 705 E	A : B = 2 : 3 parts by weight	A : B = 100 : 156 parts by volume	
	EP 706 E	A : B = 2 : 3 parts by weight	A : B = 100 : 144 parts by volume	
	EP 705 E-R10	A : B = 4 : 6.5 parts by weight	A : B = 100 : 167 parts by volume	
	EP 706 E-R10	A : B = 4 : 6.5 parts by weight	A : B = 100 : 156 parts by volume	
Processing time	Temperature	15 °C / 59 °F	20 °C / 68 °F	30 °C / 86 °F
	Time	65 minutes	60 minutes	45 minutes
Processing temperature		Minimum 15 °C / 59 °F - Maximum 30 °C / 86 °F (room- and floor-temperature)		
Curing time (Accessibility)	Temperature	15 °C / 59 °F	20 °C / 68 °F	30 °C / 86 °F
	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		0.120 - 0.180 kg/m ² for each application		
Layers		For same-colour coatings one application is usual, for difficult colours or colour tone changes apply 2 - 3 coatings!		
Colours	EP 705 E / EP 705 E-R10	Clear		
	EP 706 E / EP 706 E-R10	KLB-Standard Colours – see chart. Other colours upon request!		
Packaging		Combi-Bucket 5 kg, Combi-Bucket 10 kg, Combi-Hobbock 25 kg (EP 705 E only)		
Shelf life		12 months (originally sealed) – Protect from frost!		

Usage and Properties

KLB-SYSTEM EPOXID EP 705 E and **EP 706 E** are both 2-component water-dilutable and according to the AgBB low-emission epoxy resin sealer.

KLB-SYSTEM EPOXID EP 705 E is used as a clear, matt top coat for reactive resin coatings. partiColor®-Chips (flakes) may be added.

KLB-SYSTEM EPOXID EP 706 E can be used as a covering pigmented sealer on epoxy resin coatings.

Both top coats result in even semi-matt surfaces, adding an even nice appearance. "Mirror effects" of glossy coatings will be considerably reduced.

EP 705 E and **EP 706 E** may replace sealers containing solvents in many areas which offers convenient to work with and environmentally friendly alternative materials. Use short piled rollers carrying out criss-cross strokes. Aligned curing results in even surfaces.

EP 705 E and **EP 706 E** show good adhesion on many substrates. After adhesive tensile testing the sealer may be used on older substrates as well.

Sealer with an additionally slip resistant effect can be delivered with the special products **EP 705 E - R10** and **EP 706 E - R10**. They are accredited with the slip resistance grade R10, according to DIN 51130 and BGR 181. Processing the epoxy coatings with a lint-free velour roller, results in an even surface with slip resistance grade R10 after curing.

The product cures by drying and chemically cross-linking resulting in a sturdy consistent film with good adhesion. Completely cross-linked coatings are resistant to many chemicals, especially to water, salts, aqueous acids and alkalis, oil as well as many different solvents.

EP 705 E and **EP 706 E** have been tested according to the AgBB-testing at the LGA QualiTest GmbH in Nuremberg (FRG) and have been classified as extremely low-emission.

Note: Sealed surfaces offer only limited resistance to mechanical load. Material handling equipment may affect or destroy the sealer. Limited extent usage. In very or frequently wet areas, as well as areas exposed to chemicals, sealers containing solvents would be more appropriate.

Product Features

- low VOC
- tested according to AgBB
- environmentally friendly
- solvent-free
- convenient to work with
- low odour
- results in even surfaces
- reduces the gloss
- adds pleasant appearance to the coatings
- very economical

Testing

External test certificates are available:

- **EP 705 E** and **EP 706 E** slip resistance grade R11 possible, according to DIN 51130 and BGR 181.
- **EP 705 E - R10** and **EP 706 E - R10** slip resistance grade R10 possible, according to DIN 51130 and BGR 181.
- VOC-values tested according to the AgBB-scheme.
- Water vapour permeability, according to DIN EN ISO 7783-2.

Note: Please ask for the tested system structure!

Area of Application

- **EP 705 E** is used as a clear matt-sealer on high-quality decorative and industrial epoxy coatings.
- **EP 706 E** is used as a covering matt-sealer on high-quality decorative and industrial epoxy coatings.
- As matt-sealer on water vapour permeable coatings like **EP 785 HS** with or without partiColor®-Chips (flakes) added.
- Use as finish for **EP 727 E** – primed tempered cement coatings or grinded concrete surfaces (trials are urgently recommended).
- **EP 705 E / EP 706 E** may be used on old substrates.
- **EP 705 E - R10** or **EP 706 E - R10** are used in areas where the slip resistance grade R9 or R10 is requested.

Substrate

The substrate to be coated must be dry and free of any kind of dirt. Usually sealing is the final coat. Watch that prior coats are not soiled already. The optimum point-of-time for sealing is reached when the prior applied epoxy resin coating has cured to a sufficient stable film but not cured completely yet. Apply at 20 °C / 68 °F air- and floor-temperature after 12 hours at the earliest but not longer than 36 hours for usual systems. Note the recommendations. When sealing after the recommended point of time conduct a trial for sufficient adhesion. Even cured coatings may be sealed because of the good adhesion of the material. Required is an accurate cleaning and grinding of the surface. On old surfaces conduct pre-trials. For a change in colour tone apply at least 2 coatings. Weakly covering colours like yellow and white may require further applications.

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. For partial withdrawals stir up the single components first and then withdraw the correctly measured amount of the single component. 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 principally empty the resin/hardener-mixture into a clean container and mix briefly once again.

Processing time max. 60 minutes at 20 °C / 68 °F (see chart "Processing time").

Note: End of pot-life is not visible!

Processing / Handling

Process the material immediately after mixing as with all other reactive resins. Apply with a lint-free velour roller. Divide working areas to avoid duplicate application and overlaps. For larger areas it is recommended that 2 or more people apply the material. One or more workers apply the material in one direction another person distributes the fresh material in a 90°-angle.

Use a 50 cm wide roller on larger areas. Roller should be coated with the material. Use only for distribution not for application. For sealing work keep within the work rhythm - criss-cross rolling may not be carried out too late. Use spiked shoes on larger areas. Always work "fresh-in-fresh" and watch for an even distribution. Avoid ponding otherwise clouding or blooming may occur. Pay attention to a clean surrounding area. Use rollers suitable for sealing. Enter the area with clean shoes only. Note the recommended drying conditions during curing!

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. Avoid exposure to water and chemicals within 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 technical properties may occur in the end product.

Cleaning

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

Cleaning 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** or **EP 705 E - R10**. 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.

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 140 g/l (2010,II,j/wb):

Ready-for-use product contains < 140 g/l VOC.

EP 705 E / EP 705 E-R10

	
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

EP 706 E / EP 706 E-R10

	
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

Technical Data*

		EP 705 E	EP 706 E		
		EP 705 E - R10	EP 706 E - R10		
Viscosity	Components A + B	650 - 800	750 - 900	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content		> 40	> 45	weight-%	KLB-Method
Flashpoint		Not flammable		-	DIN 51755
Density	Components A + B	1.07	1.10	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Abrasion (Taber Abraser)		< 40	< 50	mg	ASTM D4060
Brightness (85°)		10	35	-	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 EP 705 E EP 705 E - R10	Actual Content EP 706 E EP 706 E - R10	
Directive 2004/42/EG	Component A	≤ 140	14	14	g/l
Decopaint-directive	Component B	≤ 140	26	37	g/l
DGNB German Sustainable Building Council	Components A + B	< 3	2.0	2.8	%
climate:active Climate protection initiative of the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water	Components A + B	< 3	2.0	2.8	%
LEED Leadership in Energy and Environmental Design	Components A + B	< 100	22	30	g/l
Minergie Eco® Quality standard of the "Minergie society", Switzerland	Components A + B	< 1 (< 2)	2.0	2.8	%

(* 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.)

All stated information is based on our previous experience and composition. It is not possible to consider every single case. Please seek advice for your special cases. We guarantee the correct and proper quality of our products. We do not assume responsibility for the work not carried out by us since we have no influence on the processing or processing conditions. We recommend that on-site-trials will be conducted. Our "General Terms and Conditions" apply. With appearance of this new data sheet all prior information loses validity.



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to ISO 9001.