KLB-SYSTEM EPOXID
EP 722 E

Transparent 2-component epoxy resin impregnation based on an epoxy resin emulsion for concrete substrates

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK8025-47	Bucket combo	12.00	30
AK8025-30	Hobbock combo	30.00	12

Product characteristics

Mixing ratio parts by weight	A : B = 1 : 2
Mixing ratio parts by volume	A : B = 1 : 2.2
Processing time	15 °C / 59 °F : 150 min. 20 °C / 68 °F : 120 min. 30 °C / 86 °F : 60 min.
Processing temperature	Minimum 15 °C / 59 °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 curing, but not longer than 48 hours at 20 °C / 68 °F
Consumption	Undiluted 0.040 - 0.100 kg/m² for each application
Colours	Non-pigmented
Shelf life	12 months (originally sealed) – **Protect from frost!**

Product description

KLB-SYSTEM EPOXID EP 722 E is a 2-component and water-dilutable epoxy resin emulsion without any solvents. **KLB-SYSTEM EPOXID EP 722 E** is used as impregnation on mineralic substrates, especially concrete, hardening material coating, and cement screed.

KLB-SYSTEM EPOXID EP 722 E may already be used on early age concrete. This generates a sealed transparent film, affecting as evaporation barrier and thus supporting the hardening properties of the concrete. The formation of craquelure cracks is reduced.

The concentrated **KLB-SYSTEM EPOXID EP 722 E** has to be diluted with up to 50 - 100 % of water before processing. After dilution, the epoxy resin emulsion offers low viscosity and good wettability properties and therefore penetrates very well into the pores.

The product cures by drying and chemically cross-linking to form a durable, robust film with good adhesion, which increases the quality of the concrete surfaces. Especially the dust-free property is a significant relieving effect, making the maintenance a lot easier. Reduced absorptive capacity results in reasonable wet cleaning.

KLB-SYSTEM EPOXID EP 722 E is resistant to oil, grease, salt and water, as well as conditionally resistant to fuel.

Area of application

- Suitable as non-pigmented impregnation on concrete and cement screed.
- As early impregnation.
- For the use on magnesia and anhydrite screeds.

Product features

- Total Solid according to GISCODE
- concentrated
- non-pigmented film
- odorless
- water vapour-diffusible
- very high adhesion
- with evaporation barrier
- usable as early impregnation
- environmentally friendly
- free of deleterious substances against varnish

Technical data

Viscosity - Component A+B	260	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 53	%	KLB method
Density - Component A+B	1.06	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Adhesive tensile strength	> 1.5	N/mm²	DIN EN 1542
Flashpoint	Not flammable	-	DIN 51755
Diffusion resistance rate	6500	-	DIN EN ISO 12572
Diffusion equivalent air layer thickness Sd	(0.05mm) 0.3	m	DIN EN ISO 7783-2

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

Build-up of coats

- If the substrate is smoothed industrial concrete, sweep and vacuum thoroughly, wet-clean by machine if necessary and allow to dry.
- Apply the impregnation **EP 722 E** diluted with water, mixing ratio 1 : 0.5 up to 1 : 1 parts by weight.
- Note the processing recommendations.
- Optional: application of a second layer.

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. Fresh substrates must be damp-dried and ready to be walked on. If surfaces that are already in use are impregnated, they must be cleaned and sanded. In case of doubt, a test surface is recommended to determine suitability.

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

Processing

On absorbent substrate a water drop test should be conducted. On suitable substrate the water drop should have penetrated the substrate after a short period of time (approx 1 - 2 minutes). If the substrate isn’t sufficiently absorbent the suitability of the sealer has to be tested in general. Basically it is recommended to conduct a trial because the optical appearance of the substrate will change due to the impregnation and may become irregularly darker depending on the absorbency of the substrate. Apply the impregnation manually with a soft pad or with a single-disc. Apply the mixed impregnation partially on the mineral substrate and distribute evenly saturated with a rubber squeegee without any excess. Remove any excess after a waiting period of time of approx. 10 - 20 minutes, depending on the substrate. Use a rubber wipe or a velour sealing roller, depending on the absorbency of the substrate. It is important that the surface has been impregnated evenly thin without ponding. When choosing the machine application distribute the material right away. After a waiting period of 10 - 20 minutes refinish manually or with the machine. Another operation cycle may be necessary on highly absorbent substrate. Repeat the process as described above.

Floor and air temperature must not fall below 15 °C / 59 °F and humidity must 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.

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 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

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EP722E-V1-022013
DIN EN 13813:2003-01
Synthetic resin screed mortar DIN EN 13813: SR-B1.5-AR0.5-IR4

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 4

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	32	g/l
DGNB - Components A + B	< 3	1,9	%
Klima:aktiv - Components A + B	< 3	1,9	%
LEED - Components A + B	< 100	21,3	g/l

(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.

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