KLB-SYSTEM EPOXID
EP 861

Coloured 2-component epoxy resin matt sealer with good resistance to chemicals, containing solvents

Packaging units

Artikelnummer	Verpackung	Inhalt	VE/Palette
AK1905-50	Bucket combo	10.00 kg	30
AK1905-25	Hobbock combo	25.00 kg	12

Product characteristics

Mixing ratio parts by weight	A : B = 100 : 23
Mixing ratio parts by volume	A : B = 100 : 25
Processing time	15 °C / 59 °F : 120 min. 20 °C / 68 °F : 90 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 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	0.130 - 0.180 kg/m² per application
Schichten	On fresh coatings 1 - 2 applications
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 861 is a 2-component epoxy resin sealer containing solvents. The product is mainly suitable for matt and coloured sealing of epoxy resin coatings that pose higher demands on the chemical resistance.

KLB-SYSTEM EPOXID EP 861 results in coloured, matt surfaces that give the floors an evenly matt appearance. "Mirror effects" of glossy coatings due to light scattering from the surface are significantly reduced and a uniform surface is achieved.

Process the material with a solvent-resistant short floor roller in crosswise motion. Due to its jelly consistency, **KLB-SYSTEM EPOXID EP 861** offers very good wettability properties and embeds the surfaces well, especially with textured mortar coverings. **KLB-SYSTEM EPOXID EP 861** has a good adhesion on smooth epoxy resin substrates. The product cures by drying and chemical cross-linking to form highly durable, robust films with good adherence.

Although being a sealer, **KLB-SYSTEM EPOXID EP 861** presents good resistance to chemicals. It is resistant to water, saline solutions, sodium hydroxide, diluted mineral acids, fuel, oil, and solvents.

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 860**. Seek advice if necessary!

Due to its low susceptibility to stains, **KLB-SYSTEM EPOXID EP 860** can be used as a transparent top sealer variant of **KLB-SYSTEM EPOXID EP 861** especially on scattered coloured sand coatings in kitchen areas and in the food processing industry. In addition, **KLB-SYSTEM EPOXID EP 860 Clean** is available as 2-component epoxy resin sealer designed to offer preventive protection against bacterial contamination. This assists the production of permanently hygienic surfaces, even between the necessary cleaning and disinfection cycles.

Area of application

- As finish for smooth coatings for surfaces with a slip-resistance grade of R10.

Product features

- finely structured
- matt
- low susceptibility to staining
- very economical
- BIA-tested: slip resistance grade R10 (German Institute for Occupational Safety)
- free of deleterious substances against varnish
- high chemical resistance

Technical data

Viscosity - Component A+B	300	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 45	%	KLB method
Density - Component A+B	1.11	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Abrasion (Taber Abraser)	< 50	mg	ASTM D4060
Gloss level	15 (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 861**:

EP 200 VF, **EP 202**, **EP 202 Clean**, **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:

- Slip-resistance grade R10 possible, according to DIN 51130 and BGR 181.

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.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component A has sufficient volume for the entire packaging unit. Empty all of the hardener compound B and mix immediately. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2 - 3 minutes until a homogeneous, streak-free compound forms. Partial quantities need to be weighed out in the right mixing ratio. 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

As with all reactive resin systems, processing should take place immediately after mixing using a lint-free and solvent-resistant velours sealing roller. Typically, work areas are divided up beforehand to avoid duplicate application and haphazard overlapping. Otherwise, an uneven surface appearance and streaking might appear. Solvent-based sealers should be applied at the recommended temperatures without direct sunlight or draughts. 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 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. Processing requires particular work safety measures, the DIN safety data sheet thus must be observed. Avoid ignition sources and open fire, ventilate rooms well after sealing.

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 thinner **VR 28** or **VR 33** immediately after use only when still fresh. Hardened material can only be removed mechanically. Separate cleaning and care recommendations are available for cleaning floors produced with KLB coatings and sealers.
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 contents as quickly 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: RE70 **Kennzeichnung VOC-Gehalt:** (EG-Regulation 2004/42) Maximum Permissible Value 500 g/l (2010,II,j/lb): Ready-for-use product contains < 500 g/l VOC.

CE marking

CE

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EP861-V1-022013
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

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