

KLB-SYSTEM EPOXID

EP 860

Non-pigmented 2-component epoxy resin matt sealer with good resistance to chemicals, contains solvents

EP 860 Clean

Non-pigmented 2-component epoxy resin matt sealer for jointless, chemical-resistant floors highly demanding in terms of hygiene. Contains solvents

EP 861

Pigmented 2-component epoxy resin matt sealer with good resistance to chemicals, contains solvents

Mixing ratio	EP 860	A : B = 100 : 25 Parts by weight	A : B = 100 : 25 Parts by volume	
	EP 861	A : B = 100 : 23 Parts by weight	A : B = 100 : 25 Parts by volume	
Processing time	Temperature	15 °C / 59 °F	20 °C / 68 °F	30 °C / 86 °F
	Time	120 minutes	90 minutes	60 minutes
Processing temperature		Minimum 15 °C / 59 °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		0.130 - 0.180 kg/m ² for each application		
Layers		On fresh coatings 1 - 2 applications		
Colours	EP 860	Non-pigmented, matt		
	EP 861	KLB-Standard Colours – see chart. Other colours upon request!		
Packaging		Bucket-Combi 10 kg, Hobbock-Combi 25 kg		
Shelf life		12 months (originally sealed) – Protect from frost!		

Usage and Properties

KLB-SYSTEM EPOXID EP 860 and **KLB-SYSTEM EPOXID EP 861** are 2-component epoxy resin sealer, which contain solvents. The products are suitable for matt sealing of epoxy resin and mortar coatings with an increased demand to chemical resistance.

KLB-SYSTEM EPOXID EP 860 Clean is a 2-component epoxy resin coating provided with a preventive protection against bacterial contamination. This assists the production of permanently hygienic surfaces, event between the necessary cleaning and disinfection cycles.

Note: The processing information and the technical data of **KLB-SYSTEM EPOXID EP 860 Clean EL+** don not differ from the standard product.

KLB-SYSTEM EPOXID EP 860 and **KLB-SYSTEM EPOXID EP 861** result in a pearl matt surface with an even matt appearance. Disturbing “mirror effects” of glossy coatings disappear by light dispersion resulting in a settled surface.

KLB-SYSTEM EPOXID EP 865 EL+ is a product variant of **KLB-SYSTEM EPOXID EP 860**, provided with electrically-conductive additives for the production of scattered and coloured-sand coatings (conductive RX coatings). Please carry out electrical conduction tests within system in case other alternative usages are planned.

Process the material with a solvent-resistant short floor roller using criss-cross strokes. **KLB-SYSTEM EPOXID EP 860** and **KLB-SYSTEM EPOXID EP 861** with their jelly consistency offer good wettability properties, especially for

textured mortar coatings, resulting in a finely textured surface. **KLB-SYSTEM EPOXID EP 860** and **KLB-SYSTEM EPOXID EP 861** offer good adhesion on epoxy resin substrate. The material cures by drying and chemically cross linking to a durable, robust film with good adhesion.

KLB-SYSTEM EPOXID EP 860 and **KLB-SYSTEM EPOXID EP 861** offer good resistance to chemicals as a sealer. The material is resistant to water, salt solutions, sodium hydroxide, diluted mineral acids, fuel, oil, and solvents.

Because **KLB-SYSTEM EPOXID EP 860** and **KLB-SYSTEM EPOXID EP 861** are only slightly susceptible to staining and are therefore especially suitable for kitchen areas and the food processing industry for scattered coatings with coloured sand.

KLB-SYSTEM EPOXID EP 861 is suitable as covering, pigmented sealer on epoxy resin coatings.

Note: 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 860**. If necessary, ask for a consultancy.

Product Features

- finely textured surface
- contains solvents
- highly chemical resistant
- matt surface
- mostly repellent to stains
- very economical, little consumption
- BIA tested: slip resistance grade R10
- free of deleterious substances against varnish

Testing

External test certificates are available:

- Slip resistance grade R10 possible, according to DIN 51130 and BGR 181.
- Suitable for use in foodstuffs according § 31 para. 1, German Food and Feed Code (german law LFGB).

Note: Please ask for the tested system structure!

Area of Application

- **EP 860** and **EP 861** are used as matt sealer for industrial epoxy resin mortar coatings with increased demand to mechanical load and chemical resistance.

- Suitable as finish sealer for coloured sand scattered coatings for kitchen areas and the food processing industry.
- As finish for smooth coatings for slip resistance surfaces R10.

Build-up of Coats

Industrial mortar coating with a smooth surface

- Prime with the recommended KLB-Base Coat resins, e.g. **EP 50**. Scatter with fire-dried quartz sand 1 - 2 mm.
- Apply the decorative or industrial mortar with **EP 150**.
- For smooth coatings seal pores with either applying 2 - 3 times **EP 174 / EP 175** or a combined coating with **EP 175** and **EP 179**.
- Apply the finish sealer **EP 860** or **EP 861** with a solvent-resistant velour roller using criss-cross strokes.

Slip resistant scattered coating

- Prime with the recommended KLB-Base Coat resins, e.g. **EP 50**. Scatter openly with quartz sand 0.3/0.8 mm.
- Apply a scratch coat with **EP 50 / KLB-Mischsand 2/1**, mixing ratio 1 : 0.8 parts by weight for an increased planar substrate.
- Apply a base coat using **EP 99**, **EP 213**, or **EP 216 Universal**, in a layer of approx. 1 - 2 mm. Afterwards scatter completely with coloured sand, grain size 0.3/0.8 or 0.7/1.2 mm. Sweep off any excess after 24 hours. If necessary grind and vacuum.
- Resinate the surface with **EP 175 Spezial** with a rubber coating knife, afterwards use a velour roller for the desired slip resistance.
- Apply the finish sealer **EP 860** or **EP 861** with a solvent-resistant velour roller using criss-cross strokes.

Substrate

The substrate has to be dry and absolutely clean. Usually sealing is the last coat. Make sure that prior layers haven't been soiled already. The optimum point of time for sealing is when the prior layer has built a film but not cured already. At 20 °C / 68 °F this applies after usually 12 hours at the earliest but not longer than 36 hours. Please note the recommendations for the coatings to be sealed. Test for adequate adhesion when sealing at a later point of time. Cured coatings can also be sealed due to the good adhesion. Thorough cleaning and grinding of the area is required. When sealing older substrate conduct a trial to ensure adequate adhesion.

Mixing

Combi-trading units will be supplied in the correctly measured mixing ratio. Component A has sufficient volume for the entire trading unit. Component A has sufficient volume for the complete trading unit. Decant the hardener component B into the resin component A. 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. For partial withdrawals weigh in the single components. To avoid mixing errors it is recommended to principally empty the resin/hardener-mixture into a clean container and mix briefly once again.

Processing / Handling

Process right after homogenisation just like with all other reactive resin products. Apply with a lint-free and solvent-resistant velour sealing roller. Divide working areas to avoid duplicate applications and overlaps. Overlapping and duplicate applications may lead to an uneven appearance and streaks. Solvent-containing sealers should only be processed at the recommended temperature, without any insolation or draft.

For larger areas it is recommended that 2 or more people apply the material. One or more people apply the material in one direction, another person distributes the fresh material in a 90°-angle. Use a 50 cm roller for re-rolling on larger areas. Roller should be coated with the material. Use only for distribution not for application. Always work "fresh-in-fresh" and watch for an even distribution. Avoid ponding otherwise blooming and blushing may occur. Watch for a clean surrounding area when sealing. Use suitable rollers only. Access the area only with clean shoes. Keep recommended drying conditions!

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 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. Exposure to water and chemicals should be avoided during 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. Processing requires occupational health and safety procedures. Note the DIN-Safety Data Sheet. Avoid any source of ignition and open fire. Vent rooms after sealing.

Special remarks: If the products to be applied onto the same surface are pigmented, these preferably have to belong to the same lot. Indeed, by using products taken from different lots, slight color variations depending on the raw material cannot be excluded. The lot number is indicated on the container label. With certain colors – particularly white, yellow and orange or with light pastel colors – the

recommended coating thickness must be observed, in order to guarantee hiding power.

In specific light and weather conditions and after long and intensive use, color variations, loss of gloss and yellowing may occur.

If the use of swivel chairs or other wheeled pieces of furniture is expected, suitable caster chairs or special floor protection mats are recommended to avoid wearing and abrading the floor.

Cleaning

To remove fresh contamination and to clean tools use a suitable thinner immediately. Recommended is **VR 28** or **VR 33**. Hardened material can only be removed mechanically.

Cleaning and maintenance of sealed coatings

Please note our maintenance and care recommendation for sealed floorings.

Suitable Coatings

The following self-levelling coatings can be sealed with **EP 860 / EP 860 Clean**:

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 surface adhesion can anyway be improved by grinding.

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!

EP 860 Clean: Please handle biocidal products with care. Before using please carefully read the label and product information.

GISCODE (05/2018 modification): RE 70

Indication of VOC-Content:

(EG-Regulation 2004/42)

Maximum Permissible Value 500 g/l (2010,II,j/lb):

Ready-for-use product contains < 500 g/l VOC.

EP 860

	
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen	
13	
EP860/EP860Clean-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

EP 861

	
KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen	
13	
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

Technical Data*

		EP 860	EP 861		
Viscosity	Components A + B	250	300	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content		> 40	> 45	weight-%	KLB-Method
Density	Components A + B	1.02	1.11	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Abrasion (Taber Abraser)		< 50	< 50	mg	ASTM D4060
Brightness (85°)		10	15	-	DIN 67530

(* Values achieved in sampling are average values. Variation in product specification is possible.)

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.