KLB-SYSTEM EPOXID
EP 177

Thixotropic, transparent 2-component epoxy resin for producing concave covings and to close pores of decorative quartz pebble coatings

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK1125-60	Bucket combo	10.00 kg	30



Product characteristics

Mixing ratio parts by weight	A : B = 100 : 50
Mixing ratio parts by volume	A : B = 100 : 55
Processing time	10 °C / 50 °F : 60 min. 20 °C / 68 °F : 30 min. 30 °C / 86 °F : 20 min.
Processing temperature	Minimum 10 °C / 50 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 18 - 22 hrs. 20 °C / 68 °F : 10 - 12 hrs. 30 °C / 86 °F : 7 - 10 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 curing, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	Pore-filler: depending on size of pores: 2 - 4 mm: 1.0 - 1.3 kg/m² Pore-filler: depending on size of pores: 1 - 2 mm: 0.8 - 1.1 kg/m² Covings: 2.0 - 3.0 kg mortar mixture for each 1 m of concave or triangular coving
Colours	Colorless
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 177 is a specially adjusted, thixotropic, 2-component epoxy resin formula for filling pores. Use for decorative mortar and quartz pebble coatings. Sealed surfaces with an even pebble structure can be achieved. In comparison to dispersion linked systems, **KLB-SYSTEM EPOXID EP 177** has a better resistance to water and chemicals.

The resin is especially suitable for concave and triangular covings in combination with decorative and natural sand. Due to the low inherent colour of the resin, concave coatings can be created that are almost identical in appearance to a coating made from liquid resins.

KLB-SYSTEM EPOXID EP 177 is suitable for concave and triangular covings made of coloured or natural quartz, grain size 0.3/0.8 mm, 0.7/1.2 mm, 1.0/1.8 mm or comparative sand blends. When using adequate sand combinations, a sealed surface may be achieved, which in many applications makes further pore closure or re-sealing no longer necessary.

An even quality and consistency of the mortar is achieved with the ready-to-use and thixotropic adjustment, which makes a fast and consistent application of the material possible. Thorough processing leads to appealing covings. The resin has a very light

colour of its own and shows little yellowing. As an epoxy resin-based product, it can be used in areas where requirements are placed on mechanical and chemical resistance.

KLB-SYSTEM EPOXID EP 179, compared to **KLB-SYSTEM EPOXID EP 177,** is slightly less thixotropically adjusted, a little more transparent, and even more suitable for resination and filling fine pores. Use for coatings and coving mortar made of fine grain-sized quartz. The product is suitable for interior areas.

Remark:

Colour changes, loss of gloss or yellowing may occur with certain light and weather influences and with prolonged and intensive use.

When used as a pore filler, milky clouding may occur in the deepenings and sinks due to binder accumulation, especially with dark or black quartz pebble coatings.

Area of application

- To close pores on quartz or decor pebble coverings and on decorative coatings in the interior.
- Preferably for closing pores in areas with high wet exposure.
- For mortar concave and triangular covings made of coloured and natural sand.
- Suitable for covings in industrial and decorative areas.

Product features

- Total Solid according to GISCODE (Test method "Deutsche Bauchemie")
- stable consistency
- evenly sealed pores
- mechanically resistant
- suitable for wet areas
- high chemical resistance
- very economical

Technical data

Viscosity - Component A+B	Shear thinning paste	-	
Solid content	100	%	KLB method
Density - Component A+B	1.05	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Water absorption	< 0.3	weight-%	DIN 53495
Shore-hardness D	79	-	DIN 53505 (after 7 days)

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

Included in systems

- System L1KLB DECOR STONE-CARPET EP Indoor

Please visit our website to get more information about our KLB systems: www.klb-koetztal.com

Build-up of coats

Covings

- Prime with the recommended KLB base coat resins and scatter completely with quartz sand 0.3/0.8 mm or 0.7/1.2 mm.
- Apply the concave mortar consisting of approx. 1 part by weight **EP 177** and 4 - 5 parts by weight coloured or natural quartz sand, grain size 0.3/0.8 mm, 0.7/1.2 mm, or 1.0/1.8 mm.

- Depending on the build-up of coats and the desired coating, the concave surface may be additionally resinated and/or sealed with a pigmented or unpigmented product.

Quartz pebble and decorative mortar coating pore-fiiller

- Prime with the recommended KLB base coat resins and scatter completely with quartz sand 0.3/0.8 mm or 0.7/1.2 mm.
- Apply the decorative or quartz pebble coating consisting of decorative sand resinated with **EP 174**, **EP 175**, or **EP 150**.
- To seal surface pores, apply **EP 177** with a rubber squeegee.

Substrate

Apply the scratch coat on the clean, fresh surface the next day but not longer than 48 hours after the epoxy has cured sufficiently. Late application is generally possible if adhesion has been ensured and the coverings are not soiled yet.

Mixing

Components A and B will be supplied in the correctly measured mixing ratio. The resin package has sufficient volume for the entire hardener packaging unit. Empty all of component B into the resin. Blend with a slow speed mixer (200 - 400 r/pm) for at least 1 - 2 minutes until a homogeneous, streak-free compound forms. To ensure that all the material is mixed, empty ("repot") the entire resin/hardener mixture into a clean container and mix it once again briefly.

For concave and triangular covings, add the premixed binding agent completely to the quartz mixture and blend again for approx. 1 - 2 minutes. Process immediately after mixing.

For concave coving mortar: add approx. 4 - 5 kg of coloured or natural sand 0.3/0.8 mm, 0.7/1.2 mm, or 1.0/1.8 mm, or other suitable sand blends like mixed sand **KLB-Mischsand 1** for each kg of **EP 177**. For liquid-tight mortar, adjust the amount of additives according to the desired grading curve.

Processing

For the pore sealing of decorative or industrial mortars, after **EP 177** has been mixed, let the material set during a waiting period of approx. 5 minutes. Blending causes a decrease of the structured viscosity. A holding time will increase the viscosity back to the desired level. Immediate continued processing may lead to an uneven appearance because the binding agent may subside on the coated surface.

The mixed binder is applied to the prepared surface of the decorative mortar covering after the waiting time. The work is carried out along a working edge. Always work fresh in fresh.

For the application and even distribution of the pore seal **EP 177**, elastic rubber joint boards are suitable on coatings with a high depth structure. For coverings with higher evenness, flexible Kaupp spatulas are necessary.

Apply small portions of the material on the surface, spread it immediately with the jointing board and skim it uniformly over grain.

Smooth the surface evenly with at least two trowel strokes in opposite directions. To work seamlessly, always work "fresh-in-fresh" and homogeneously. Especially in overlapping areas, watch for complete covering of the surface.

For application on coarse stone carpets, the surface is evenly rolled with a lint-free, short-pile velour roller that is sufficiently saturated with material. It is important to see whether an even finish has been achieved as soon as rolling starts. If there are irregularities, it must be rolled again until a homogeneous surface appears. The roller must be wiped from time to time to remove excessively absorbed binder.

For **concave covings**, the mortar mixture of **EP 177** and colour quartz can be laid right away. For this purpose, the mixed material is placed at the corners and edges in the appropriate amount according to the desired cove or triangular fillet. When working "fresh-in-fresh", we recommend using the pure binder **EP 177** as primer on the prepared substrate.

Depending on the desired shape and appearance, the covings are then formed using the appropriate tools, with light pressure on the already applied material along the edges. To work seamlessly, always work "fresh-in-fresh" and keep tools clean, e.g. with a thinner. Suitable tools are offered by KLB or different other manufacturers.

Floor and air temperature must not fall below 10 °C / 50 °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 drying will not be possible with hardening problems and spotting to occur. The specified hardening 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 thinner **VR 24** or **VR 33** immediately. Hardened material can only be removed mechanically.

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 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: RE30

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.

CE marking

CE

KLB Kötztal Lacke + Beschichtungen GmbH Günztalstraße 25 FRG-89335 Ichenhausen
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EP177-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

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 in individual cases. With the publication of this new KLB product information, all prior information loses validity. The latest version is available electronically on our website www.klb-koetztal.com. In addition, our "General Terms and Conditions“ apply.

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