KLB-SYSTEM EPOXID
EP 179

Thixotropic 2-component epoxy resin for concave covings with coloured and natural sand

Packaging units

Article no.	Packaging	Content (kg)	Units/pallet
AK1124-70	Bucket combo	5.00 kg	45

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	When wet or after curing, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	2.0 - 3.0 kg mortar mixture per 1 m concave or triangulare moldings
Colours	Colorless
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM EPOXID EP 179 is an especially thixotropic adjusted 2-component epoxy resin formulation for stable mortar for concave or triangulare moldings. The epoxy resin is especially suitable for moldings made with coloured quartz sand. Because of an only slight basic colour of the resin, moldings that are almost identical with the fluid resin can be produced.

KLB-SYSTEM EPOXID EP 179 is suitable for concave and triangulare moldings made from coloured and natural quartz sand, e.g. grain size 0.3 - 0.8 mm or 0.7 - 1.2 mm or a blend of sand with a compatible grain size. With adequate sand combinations a sealed surface may be achieved. Further coatings/sealing may than not be necessary.

A consistent performance and texture of the mortar is achieved because the adjustment is ready-to-use and thixotropic. This allows a fast and even application. With accurate application an appealing appearance is achieved. The resin has only a slight basic colour and is adjusted with very slight yellowing. The epoxy resin based product is suitable for areas with demands on mechanical load and chemical resistance.

Remark:

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

Area of application

- **EP 179** is suitable for concave and triangulare moldings with coloured and natural sand.

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.

Build-up of coats

- Prime with the recommended KLB base coat resins and scatter completely with quartz sand.
- Apply the molding mortar consistent of approx. 1 part by weight **EP 179** and approx. 5 parts by weight coloured quartz or natural quartz sand.
- Depending on the coating and desired surface the molding surface may be additionally resinated and/or sealed, pigmented or unpigmented.

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. Surfaces suitable for coating are concrete C20/25 (B 25) and cement screed CT-C35-F5 (ZE 30), as well as other sufficiently solid substrates. The substrates to be coated should be prepared mechanically, preferably by shot-blasting. The surface strength must then be at least 1.5 N/mm². For concrete, moisture content must not exceed 4.5 CM-%, remaining residual humidity. The possibility of moisture ingress from the rear must be permanently excluded. Observe the information issued by the trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S. Reconstructing floors may require special procedures. Obtain technical advice.

Concave or triangulare moldings may be placed on the fresh basic coating. Please note that this may cause that the mortar rolls off inadvertently. The work is made easier if the primer is scattered with quartz sand 0.7/1.2 mm and the molding applied to the sanded surface the next day after sufficient hardening. In case of sanded surfaces, the fillet can also be applied later.

Mixing

Components A and B will be supplied in the correctly measured mixing ratio. The resin unit has sufficient volume for the entire hardener. Decant the hardener into the resin. Blend with a slow speed mixer (200 - 400 r/pm) for at least 1 - 2 minutes, for a material that is homogeneous and free of streaks. Then add the pre-mixed binder completely to the quartz mixture and mix again with the colour quartz for about 2 minutes. Process immediately after mixing!

Processing

Producing concave molding mortar

Per 1.0 kg **EP 179,** 5 kg coloured sand 0.3/0.8 mm, natural sand 0.3/0.8 mm or some other sand mixture like **KLB-Mischsand 1** may be added. Depending on the type of sand, the amount added can vary somewhat if pore-free mortar is required.

The mixed binder is applied to the edges and angles in the appropriate quantity according to the desired formation of the cove or triangular molding. When working “fresh-in-fresh”, it is recommended to apply the base layer with the binding agent **EP 179** on the prepared surface. 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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EP179-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.

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