KLB KÖTZTAL
Lacke+Beschichtungen GmbH

KLB-SYSTEM EPOXID
EP 200 VF
2-Component Epoxy Resin Self-Flow Mortar

Mixing Ratio	Parts by weight:	A : B =	100 : 25	
	Parts by volume:	A : B =	100 : 37	
Application	Temperature	10°C	20°C	30°C
	Time	60 mins.	30 mins.	20 mins.
Working temperature		minimum 10°C (room- and floor- temperature)		
Setting	Temperature	10°C	20°C	30°C
	Time	24 - 36 hrs.	14 - 18 hrs.	10 - 14 hrs.
Hardening	Mechanical	2 -3 days for exposure to mechanical forces at 20°C		
	Chemical	7 days for resistance to chemicals at 20°C		
Further coatings		after 14 - 18 hours, but not later than 48 hours at 20° C		
Consumption		1.48 kg/m² per 1 mm coat thickness		
Coat thickness		1.3 – 5 mm		
Quartz Sand Addition		recommended for coat thickness from 2.0 mm with up to 70%		
		quartz sand according to type of use and temperature		
Colours		12 KLB standard colours, other colours on request !		
Packaging		Combi-can 10 kg, Combi-Hobbock 30 kg		
Shelf life		12 months (in original, sealed packaging)		

Description and Properties

KLB-SYSTEM EPOXID EP 200 VF is a solvent-free, pigmented, self-flow coating based on 2-component epoxy resin with excellent flow- and smoothing- properties. Due to its good flow performance, coatings can be applied from 1.5 mm up to any desired thickness according to demand and with due regard to wear factors.
EP 200 VF is made from high-quality resin components with high binder content. Best economy can be obtained by addition of quartz sand, especially when working with greater thicknesses. The product is easy to use and gives a first-class appearance. The hardened coating is suitable for use in commercial and industrial areas. **EP 200 VF** will accommodate some deflection and, as with all epoxy resin coatings, has excellent wear resistance. As an epoxy resin coating, **EP 200 VF** has good resistance to yellowing and is, therefore, suitable for use in light colours.
EP 200 VF has good chemical resistance, e.g. against alkalis, oils, grease, solvents, water salt solutions and various acids. If particular resistance properties are required, please obtain advice.

Product Features

- Solvent free
- Smooth coloured surface finish
- Low viscosity
- Good range of resistance properties
- Resistant to hydrolysis and saponification
- Can be extended with sand aggregate
- Hard-elastic and wear-resistant

Areas of Use

- Commercial areas with medium mechanical wear, e.g. production areas, warehousing in many industrial sectors (2 mm coating)
- Commercial areas with high mechanical wear, e.g. production areas, warehousing in many industrial sectors (3-4 mm coating)
- Surfaces with high demand for resistance to chemicals and exposure to wetting
- Coloured wear-surfaces for decorative scatter-coatings with coloured sand, with top seal-coat, e.g. with **EP 175 Spezial**, **EP 174**, **EP 860**

Finish Construction

- prime with the recommended KLB resin primer
- apply a scratch-coat using a mixture of resin primer and sand
- apply the mixed coating using a notched trowel or rake
- optional scatter finish and top seal-coat can be applied

Substrate

The surface to be coated must be flat, dry, dust-free, have adequate tensile and compressive strength and be free from constituents and finishes that would impair adhesion. Remove contaminants such as grease, oil and paint residues using suitable methods. Refer to the notes issued by the trade associations, e.g. the current versions of BEB worksheets KH-0/U and KH-0/S as well as the notes in the Product Information Sheets for the recommended KLB primers, e.g. **EP 30**, **EP 50**, **EP 51 S** and **EP 52.**

The surface to be coated must be mechanically prepared, preferably by shot-blasting. The prepared surface must be carefully and fully primed. Substrates are often very difficult to assess with regard to the necessary sealing of the surface and it is generally recommended, also for smoothing the surface, to apply a scratch-coat. If the primed surface is not fully sealed, bubbles and pin-holes can occur in the coating caused by rising air from the substrate. If in doubt, prepare a test area. To improve adhesion, the surface should be fully coated with approx. 0.5 – 1.0 kg/m^2 of quartz sand, 0.3/0.8 grade.

Mixing

With combi-cans, factory-measured material in the precise mixing ratio is provided in one package. The can containing Component A is large enough to accept the total mix quantity. Fully decant hardener B into the can of resin. Blend mechanically with a slow-speed mixer (200 – 400 rpm) and for 2 – 3 minutes until a homogeneous, streak-free mixture is achieved. To avoid mixing errors, we recommend to pour the mixed resin into a clean drum and briefly mix again.
Addition of quartz sand: sand is added immediately after mixing the components. Suitable sand is quartz sand in grade 0.1 – 0.3. Do not use quartz flour or sand mixtures. The amount added depends on the coat thickness, temperature and the type of sand. **EP 200 VF** can normally be mixed with up to 0.7 kg quartz sand to 1 kg of coating material. For thin coats, sand addition may not be recommended as the flow properties will be affected.

Application

Application should be carried out immediately after mixing using a rake or notched trowel (Pajarito 48), by spreading a coat of consistent thickness onto the prepared surface. The product is produced for optimum flow but rolling with a spike-roller is recommended to improve adhesion to the substrate, to maximise the flow properties and to remove air bubbles. Rolling with the spike-roller should be delayed for approx. 10 - 20 minutes. To ensure joints do not show, always work “fresh-in-fresh” and determine the working bays before commencing. To allow air to escape, do not apply scatter materials too early; the optimum timing at 20°C is after 20-30 minutes.
The temperature of floor and air must not fall below 10°C and the air humidity must not be above 75%. The temperature difference between floor- and room- temperature must be less than 3°C so that drying is not affected. In the event of a dew-point situation, correct drying cannot take place, the setting process will be affected and spots will form. The prescribed setting times apply at 20°C; at lower temperatures, the working- and setting- times are extended and, at higher temperatures, they are shortened.
For cleaning equipment, Thinners **VR 28** or **VR 33** are recommended.

Storage / Transport

Store in dry and, where possible, frost-free conditions. Ideal storage temperature is 10 – 20 °C. Before application, bring to a suitable working temperature. Tightly re-seal opened containers and use the contents as quickly as possible.
The product falls outside the hazardous materials-, operational safety- and transport- regulations for hazardous goods. The relevant notes are in the DIN Safety Data Sheet. Refer to the label notes on the container!
GISCODE: RE 1

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Technical Data*

Viscosity	Comp. A+B	2600	mPas	DIN EN ISO 3219 (23°C)
Solid state		> 99	%	(KLB factory standard)
Density	Comp. A+B	1.48	kg/litre	DIN EN ISO 2811-2 (23°C)
Weight loss		0.3	% by weight	(after 28 days)
Water absorption		< 0.2	% by weight	DIN 53495
Tensile bending strength		30	N/mm^2	DIN EN 196/1
Compressive strength		70	N/mm^2	DIN EN 196/1
Shore-hardness D		80	-	DIN 53505 (after 7 days)
Abrasion resistance (Taber)		50	mg	ASTM D4060

(* values achieved in sampling are average values. Variations from the product specification are possible)

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