

# KLB-SYSTEM EPOXY EP 30

## Construction Resin

Mixing Ratio	Parts by weight:	A : B =	3 : 1	
	Parts by volume:	A : B =	100 : 37	
Working	Temperature	10°C	20°C	30°C
	Time	70 Min.	40 Min.	20 Min.
Working Temperature	minimum 10°C (room and floor temperature)			
Setting	Temperature	10° C	20° C	30° C
	Time	24 - 28 hrs.	12 - 15 hrs.	8 - 12 hrs.
Setting	2 -3 days until resistant to mechanical wear			
	7 days until chemical-resistant at 20°C			
Over-Coating	whilst still when or when set			
	but not later than 48 hours at 20°			
Consumption	as a primer	approx. 0.3 – 0.4 kg/m <sup>2</sup>		
	as a scratch-coat	approx. 0.4 – 0.6 kg/m <sup>2</sup>		
	as a mortar	approx. 0.15 – 0.3 kg/m <sup>2</sup> per 1 mm of thickness		
Packaging	Combi-can 1 kg, Combi-can 5 kg, Combi-can 10 kg,			
	Combi-Hobbock 30 kg, Combi-Drum 200/180 kg			
Shelf Life	12 months (in original, unopened packaging)			

### Usages and Properties

KLB-System EPOXID **EP 30** is an unfilled, low viscosity and colourless epoxy-resin for producing primers, scratch-coats and thick-coat smoothing compounds. **EP 30** has excellent adhesion properties, can be highly filled and yet has good application properties. EP 30 has a good, consistent cure and excellent bond to mineral substrates. Broadcasting the surface with quartz sand, 0.3 / 0.8 grade, to provide mechanical bond is highly recommended.

### Product Features

- solvent-free
- economical
- low shrinkage
- universal applications
- resistant to hydrolysis and saponification
- low viscosity

### Applications

- as a primer prior to coating application
- as a scratch-coat to smooth and seal the surface
- as a repair-, smoothing- and underlayment- mortar
- for construction and joint-filling work

### Substrate

The substrate to be coated must be level, dry, dust-free, have adequate tensile and compressive strength and be free from weakly-bonded components or surfaces. Materials that would impair adhesion, such as grease, oil and paint residues, must be removed using suitable methods. Suitable surfaces are concrete B25, cement screeds ZE 30 and other, adequately sound surfaces. The substrate must have adequately high strength for the proposed occupational use. Coating mastic asphalt with epoxy-resin is not recommended.

The surface to be coated should be prepared mechanically, preferably by shot-blasting. The surface strength must then be a minimum of 1.5 N/mm<sup>2</sup>. For concrete, moisture content must not exceed 4.0% by weight. The possibility of moisture ingress must be permanently excluded. Please refer to the current recommendations of the trade associations, e.g. BEB work-sheets KH-0/U and KH-0/S.

The refurbishment of floors can require special procedures. Obtain special advice.

### Mixing

By individual packaging of the components, they can be measured into the exactly prescribed mixing ratio.

With combi-cans, the material is measured at the factory in the exact mixing ratio and supplied in practical packaging. The can containing Component A has sufficient volume for the total mix quantity. Empty Hardener B completely into the can of resin. Mixing is by mechanical means using a slow-running drill-mixer (200-400 rpm) and should take at least 2 – 3 minutes until a uniform, streak-free mixture is achieved. To avoid mixing errors, it is recommended that the mixed resin is decanted into a clean container and briefly mixed again.

## Aggregation

### Scratch-Coat:

1.0 kg KLB System EPOXY EP 30  
0.5 – 0.8 kg KLB Sand 2/1

### Resin-Mortar:

1.0 kg KLB System EPOXY EP 30  
8.0 – 12.0 kg KLB Sand 1

When adding aggregates, the resin is mixed first and then the aggregate is incorporated. The quantity of sand added depends on the desired consistency and strength.

## Application

**Primer:** application as a primer is carried out immediately after mixing using a rake, trowel or nylon roller. Apply a fully sealed coat of consistent thickness over the surface. On highly absorbent substrates, a second coat or an all-over scratch-coat is recommended to achieve a fully sealed surface. For optimum adhesion, the surface should be broadcast with approx. 0.8 kg quartz sand (grade 0.2 / 0.7) whilst still wet. This must always be done if the coating is to be applied later than 24 hours after the primer is applied.

## Technical Data\*

Viscosity	Comp. A	1400	mPas	DIN EN ISO 3219 (23°C)
	Comp. B	15	mPas	DIN EN ISO 3219 (23°C)
	Comp. A+B	350	mPas	DIN EN ISO 3219 (23°C)
Solid state		> 99	%	(KLB factory standard)
Density	Comp. A	1.12	kg/litre	DIN EN ISO 2811-2 (23°C)
	Comp. B	1.00	kg/litre	DIN EN ISO 2811-2 (23°C)
	Comp. A+B	1.09	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
Bending tensile strength		> 25	N/mm <sup>2</sup>	DIN EN 196/1
Compressive strength		> 70	N/mm <sup>2</sup>	DIN EN 196/1
Shore-hardness D		80	-	DIN 53505 (after 7 days)
Adhesive tensile strength		> 1,5	N/mm <sup>2</sup>	DIN EN 1542

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

**Scratch-Coat:** for smoothing the substrate and to completely seal the substrate, a scratch-coat should be applied before applying the surface coating. This can be done with a trowel or a metal- or rubber- squeegee rake. The consistency should be as required by surface absorbency and such that the material flows smoothly.

**Epoxy-Resin Mortar:** repair-, underlayment- and smoothing- mortars can be produced using EP 30. For producing industrial mortar coatings, special resins EP 150 and EP 157 are recommended. Apply immediately after mixing. Pull out the mortar with a batten and compact and smooth using a smoothing trowel.

The floor and air temperatures must not exceed 10° C and the air humidity must not be above 75%. The stated times apply at 20° C; at lower temperatures, the working and setting times are delayed and, at higher temperatures, they are shortened.

To clean tools, Thinners **VR 24** are recommended.

## Storage / Transport

Store in dry and frost-free conditions. Ideal storage temperature is 10 - 20°C. Bring to a suitable working temperature before application. Tightly re-seal opened containers and use up the material as soon as possible.

The product falls within the hazardous material and usage safety regulations, as well as the transport regulations for hazardous goods. The required notes are contained in the DIN Safety Data Sheet. Refer to the notes on the container label!

### **Component A:**

ADR Classification 9, VP III, GefStoffV: irritant

### **Component B:**

ADR Classification 8, VP III, GefStoffV: corrosive