HEGGEL® Pox 411

Epoxy Resin as Base Coat, Filler, and Reactive Resin Mortar

You Build, We Protect!

Description:

HEGGEL Pox 411 is a two-component, unfilled, low-viscosity, and non-pigmented epoxy resin for base coats, scratch coats, and heavy-layered levelling screeds.

HEGGEL Pox 411 features good wettability properties and may be filled up to a high grade. Nevertheless, it offers good processing properties.

HEGGEL Pox 411 cures very well and consistently, and features good adhesion to mineral substrate. To improve interlayer adhesion, it is basically recommended to scatter with fire-dried quartz sand, grain size 0.3 / 0.8 mm.

Characteristics:

- High solid content
- Economical
- Low shrinkage
- Low viscosity
- All-purpose application
- Resistant to hydrolysis and saponification
- Free of deleterious substances against varnish

Applications:

- Base coat before the application of coatings.
- Scratch coat for sealing and levelling.
- Repair, levelling and underlayment mortar.
- Assembly and grouting work.

Application Data:

Mixing Ratio	**Parts by Weight** **Parts by Volume**	A : B = 3 : 1 A : B = 100 : 37		
Processing Temperature		Minimum 10°C (room -and floor- temperature)		
Further Coatings		After curing, but not longer than 48 hours at 20°C		
Consumption	**Base Coat**	Approx. 0.3 - 0.4 kg/m²		
	Scratch Coat	Approx. 0.4 - 0.6 kg/m²		
	Mortar	Approx. 0.150 - 0.300 kg/m² for each mm of layer		
@Temperature		**10°C**	**20°C**	**30°C**
Curing Time	**Accessibility**	24 - 48 hrs	12 - 15 hrs	8 - 12 hrs
	Mechanical Load	-	2 - 3 days	-
	Chemical Load	-	7 days	-
Processing Time		70 min	40 min	20 min

Note: Bring to a suitable working temperature (minimum 10°C) before application.

Technical Data:

Title	Standard	Value	Unit
Viscosity	DIN EN ISO 3219 (23°C)	750	mPas
Solid Content	HEGGEL-Method	> 99	weight%
Density	DIN EN ISO 2811-2 (20°C)	1.09	kg/L
Weight Loss	After 28 days	0.3	Weight %
Water Absorption	DIN 53495	< 0.2	Weight %
Bending Tensile Strength	DIN EN 196/1	> 25	N/mm²
Compressive Strength	DIN EN 196/1	> 70	N/mm²
Shore-Hardness D	DIN 53505 (after 7 days)	80	-
Adhesive Tensile Strength	DIN EN ISO 1542	> 1.5	N/mm²

Note: Values achieved in sampling are average values. Variation in product specification is possible.

Packaging:

Hobbock-Combi 30 kg

Storage:

12 months in sealed original containers under dry and cool conditions between 10 - 20°C. Tightly re-seal opened containers and use the content as soon as possible. Protect from heat and freeze!

1. Surface Preparation

The substrate to be coated has to be levelled, dry, free of dust, has to have adequate tensile and compressive strength, and be free from weakly-bonded components or surfaces. Materials impairing adhesion, such as grease, oil, and paint residues must be removed using suitable methods. Suitable surfaces are concrete C20/25 (B 25), cement screed CT-C35-F5 (ZE 30), as well as other adequately sound surfaces. The substrate has to have adequately high strength for the proposed occupational use. Coating of 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_2. 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. Reconstructing floors may need special procedures. Obtain technical advice.

2. Mixing

Single packages of the components need to be measured in the precise mixing ratio. Combi-trading units will be sup- plied in the correctly measured mixing ratio. Component A has sufficient volume for the entire trading unit. Decant the hardener into the resin completely. 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. To avoid mixing errors it is recommended to empty the resin/hardener-mixture into a clean container and mix briefly once again ("to repot“).

Producing scratch coats and mortar:

Scratch Coats:

1.0 kg **HEGGEL Pox 411**

0.5 - 0.8 kg **HEGGEL quartz sand-mix 2/1**

Epoxy Resin Mortar:

1.0 kg **HEGGEL Pox 411**

8.0 - 12.0 kg **HEGGEL quartz sand-mix 1**

Before adding additives, premix the binding agent. Then add the additive. The amount of the sand blend to be added depends on the desired texture and consistency.

3. Processing / Handling

Base Coat: Processing the material as a base coat takes place immediately after mixing, using a coating knife, trowel, or nylon roller. Apply an evenly closed coat on the substrate. On highly absorbent surfaces a second coat or a saturated scratch coat is recommended to achieve a compact surface. For optimum adhesion scatter the fresh surface with approx. 0.8 kg/m² quartz sand (grain size 0.3 / 0.8 mm). This is mandatory if the subsequent coatings will be applied later than 48 hours after base coat application.

Scratch Coat: For smoothing the substrate, as well as pore sealing apply a scratch coat. Use a trowel, metal, or rubber coating knife. The consistency has to be adjusted according to the absorbency of the substrate, and set so the material may run true.

Epoxy Resin Mortar: HEGGEL Pox 411 may be used as repair, underlayment, and levelling mortar. Use the special resin **HEGGEL Pox 480** for industrial mortar coatings. Process immediately after mixing. Pull off with a lath, compact, and smooth with a smoothing trowel.

Floor and air temperature must not fall below 10 °C and humidity must not exceed 75 %. The difference in floor -and room-temperature must be less than 3 °C so the curing will not be disturbed. If a dew point situation occurs, adhesion may malfunction, curing may be disturbed, and spotting may occur. Curing time applies to 20 °C. Lower temperature may increase; higher temperature may decrease the curing and processing time.

Special Remarks: We advise against the “gumming” of screed joints / flat joints with pure or with thixotropic agent filled epoxy resin. In the course of time, these areas will begin to show on the surface. For the application, use always the HEGGEL-Primer resin in combination with quartz sand e.g. **HEGGEL quartz sand-mix 1** or **HEGGEL quartz sand-mix 2/1.** For this, we recommend to add at least 1 - 3 parts by weight of filler.

4. Cleaning

To remove fresh contamination and to clean tools use **Cleaner V20** or **V30** immediately. Hardened material can only be removed mechanically.

5. Safety Measure

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!

GISCODE (05/2018 modification): RE 30

6. 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.

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