HEGGEL® Pox 413

Moisture-Tolerant Epoxy Resin Primer

You Build, We Protect!

Description:

HEGGEL Pox 413 is a rapid-setting two-component epoxy resin. Highly moisture tolerable.

HEGGEL Pox 413 humidifies matt-damp surfaces, blocks water, and leads to excellent adhesion. It is available as an alternative product to **HEGGEL Pox 412** and is adjusted with rapid curing features. The material combines good adhesion and wettability properties and allows subsequent processing within 4 - 6 hours.

HEGGEL Pox 413 is suitable for critical substrate for temperatures above 5 °C. The product is preferably applicable for concrete and screed if a bonding course needs to be reached rapidly. Because of the medium viscosity the material is suitable for scratch coats and as a wet bonding course for bonded screed. **HEGGEL Pox 413** offers very good adhesion on sand-blasted steel.

Characteristics:

- High solid content
- Rapid-setting
- Very high adhesion
- Strain strengthening
- All-purpose application
- Resistant to hydrolysis and saponification
- Cures even on damp substrates
- Free of deleterious substances against varnish

Applications:

- Use as base coat before coating pale-damp and chemically wet-cleaned substrate.
- Rapid-setting, strong adhesion base coat.
- Solidification of weakly based substrate.
- Scratch coat for sealing and levelling.

Application Data:

Mixing Ratio	**Parts by Weight** **Parts by Volume**	A : B = 100 : 50 A : B = 100 :55		
Processing Temperature		Minimum 5°C (room -and floor- temperature)		
Further Coatings		While still wet or after curing (4 - 6 hours), but not longer than 24 hours at 20°C		
Consumption	**Base Coat**	Approx. 0.3 - 0.4 kg/m²		
	Scratch Coat	Approx. 0.4 - 0.6 kg/m²		
	@Temperature	**10°C**	**20°C**	**30°C**
Curing Time	**Accessibility**	8 - 10 hrs	4 - 6 hrs	3 - 4 hrs
	Mechanical Load	-	1 - 2 days	-
	Chemical Load	-	7 days	-
Processing Time		30 min	15 min	10 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)	950	mPas
Solid Content	HEGGEL-Method	> 99	Weight %
Density	DIN EN ISO 2811-2 (20°C)	1.08	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)	82	-
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 must have adequately high strength for the proposed occupational use. Adhesive tensile strength can be increased on stability-lacking substrate because of the reinforcing effect of the material (Conduct pre-trials though!) The 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.

Under certain circumstances **HEGGEL Pox 413** may be applied on damp (up to approx. 6.0 CM%) substrate. For application on substrate with increased dampness a double layer of primer is required. If necessary, get advice from HEGGEL technical support.

Reconstructing floors requires a performance control, e.g., testing the adhesive tensile strength beside the usual requirements.

2. Mixing

Single packages of the components need to be measured in the precise mixing ratio. Combi-trading units will be supplied 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 rpm) 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 413**
0.5 - 0.8 kg	**HEGGEL quartz sand-mix 2/1**

Before adding additives, the resin has to be premixed. The amount of the sand blend to be added depends on the desired texture and consistency.

3. Processing / Handling

Primer: Process the material immediately after mixing with a coating knife, spatula, or nylon roller. Apply an evenly closed sealing coat on the substrate, re-roll with roller if necessary. On highly absorbent surfaces a second coat or a saturated scratch coat is recommended for a sealed substrate. While still fresh, scatter the surface with approx. 0.8 kg quartz sand (grain size 0.3 / 0.8 mm) for optimum adhesion. This is mandatory if the subsequent coatings will be applied later than 24 hours after base coat application. The first coating must not be scattered if substrate with an increased dampness is primed twice.

Scratch Coat: For smoothing and completely sealing the substrate apply a scratch coat before the application of subsequent coatings. This can be done with 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.

Floor -and air- temperature must not fall below 5 °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-Base coats **HEGGEL Pox 411** or **HEGGEL Pox 481** 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 55

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.

All information contained herein is based on the current state of our knowledge and practical experience at the time of release. Therefore, please make sure that this is the latest edition of the Technical Data Sheet. All data are only intended as a guideline for informational purposes and do not constitute a legally- binding warranty of the suitability for a certain purpose of use, due to its dependence on site conditions and possible processing, use and applications. All information contained in this technical datasheet is subject to change without notice.

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