HEGGEL® Pox 419

Low-emission, Moisture Tolerance Epoxy Resin Primer

You Build, We Protect!

Description:

HEGGEL Pox 419 is a new, low-emission, two-component epoxy resin special primer. The product is modelled after our trusted **HEGGEL Pox 412** primer. Like **HEGGEL Pox 412, HEGGEL Pox 419** has an excellent wetting behaviour and penetrating power on the most diverse substrates. Due to its high humidity tolerance, the primer is particularly suitable for fresh substrates with a high humidity.

HEGGEL Pox 419 corresponds to the latest generation of low-emission epoxy resins, and it is free of solvents, benzyl alcohol, and alkyl- phenols.

HEGGEL Pox 419 can be used as primer and scratch coat before the installation of other coatings. As a highly adhesive primer, it is particularly suitable also in the renovation of substrates. The adhesion strength can often be improved by the primer.

The primer can be used as osmotic braking and vapour barrier primer for the preparation of coatings as well as with other coverings. If necessary, the installation has to be carried out in two times. The primer can be used on fresh concrete up to a max. 6 CM-%, so that the special requirements can be met. If necessary, seek advice!

HEGGEL Pox 419, used in combination with other layers, serves a low-emission barrier.

In combination with the degreasing agent **HEGGEL DG 950,** oil contaminated substrate is first cleaned, and subsequently primed with **HEGGEL Pox 419.**

Characteristics:

- High solid content
- Low-emission according to AgBB
- Free of alkylphenols and benzyl alcohol
- Higher moisture-resistance
- Higher penetration and good wettability
- Universal and reliable
- Increased durability to osmosis
- Barrier against raising damp
- Universally applicable
- Resistant to hydrolysis and saponification

Applications:

- As a low-emission primer before the installation of polyurethane and epoxy coatings.
- Suitable on substrates with and increased moisture, and substrates with specific requirements.
- Priming of slightly damp and wet chemically cleaned substrates.
- Consolidation of not sufficiently firm substrates, preferably for renovations.
- As a barrier against raising damp with trowelled compounds and other coatings.
- Priming of blasted steel.
- Scratch coat to seal the pores and equalize.

Application Data:

Mixing Ratio	**Parts by Weight** **Parts by Volume**	A : B = 2 : 1 A : B = 100 : 55		
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		
	Barrier Coat	Approx. 0.8 - 1.0 kg/m² in 2 layers		
@Temperature		**10°C**	**20°C**	**30°C**
Curing Time	**Accessibility**	24 - 28 hrs	12 - 15 hrs	8 – 12 hrs
	Mechanical Load	-	2 - 3 days	-
	Chemical Load	-	7 days	-
Processing Time		60-70 min	40 - 50 min	20 - 25 min

Packaging:

Hobbock-Combi 30 kg

Storage:

12 months in sealed original containers under dry and cool conditions between 10 - 20°C. Bring to a suitable working temperature before application. Tightly re-seal opened containers and use the content as soon as possible.

Protect from heat and freeze!

1. Build-up of Coats

- **HEGGEL Pox 419** can be used as primer and as scratch coat. Details on the coats build-up are listed in the coating material.
- Substrates with an increased humidity can be primed with **HEGGEL Pox 419**. For this purpose, special measures are required. Please ask for consultancy.
- The primer can be utilized as a protection for the flooring system against rising damp and alkalinity. This kind of barrier is applied in two layers, after an appropriate preparation of the substrate. Depending on the execution, 0.8 -1.0 kg/m² will be utilized.

2. Surface Preparation

The substrate to be coated has to be levelled, dry, and free of dust. It has to have an 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. **HEGGEL Pox 419** can be used as a bonding course on pale-damp substrate after degreasing with **HEGGEL DG 950.** Suitable surfaces are concrete C20/25, cement screed CT-C35-F5, as well as other adequately sound surfaces. The concrete has to be free of water-soluble silicates and alkali-resistant additives as well as silicate impregnating agents. Where such substances are present, special preparatory measures are necessary. The substrate must have adequately high strength for the proposed occupational use. The coating of mastic asphalt with epoxy resin is not recommended. The adhesive tensile strength can be increased on stability-lacking substrate because of the reinforcing effect of the material. 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/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.

Under certain circumstances, **HEGGEL Pox 419** may be applied on damp substrate (up to about 6.0 CM%). 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 final examination, e.g. testing the adhesive tensile strength beside the usual requirements.

3. Mixing

Single packages of the components need to be weighed 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 B 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:

1.0 kg	**HEGGEL Pox 419**
0.7 - 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.

4. Processing / Handling

Primer: Processing the material as a primer takes place immediately after mixing with a coating knife, spatula, or nylon roller. On highly absorbent surfaces a second coat or a saturated scratch coat is recommended to achieve a fully sealed substrate. While still fresh, scatter the surface with approx. 0.8 kg fine-dried quartz sand (grain size 0.3 / 0.8 mm) for optimum adhesion. This is mandatory if the subsequent coatings will be applied later than 36 hours after base coat application. For an increased resistance to osmosis it is necessary to apply the base coat in two layers, consumption: minimum 0.4 - 0.5 kg/m² per each layer. Then do not scatter the first layer of the base coat and work within the recommended time pattern.

Scratch Coat: For smoothing and completely sealing the substrate, it is recommended to apply a scratch coat before subsequent coatings. 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.

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. If working conditions are not complied with, deviations in the described technical properties may occur in the end product.

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 2/1.** For this, we recommend to add at least 1 - 3 parts by weight of filler.

5. Cleaning

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

6. Safety Measures

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

7. Indication of VOC-Content

(EG-Regulation 2004/42)

Maximum Permissible Value 500 g/L (2010,II,j/wb): Ready-for-use product contains < 500 g/L VOC.

Technical Data

Title	Standards	Value	Unit
Viscosity (Components A + B)	DIN EN ISO 3219 (23 °C)	Approx. 550	mPas
Flashpoint	DIN 51755	> 100	°C
Density (Components A + B)	DIN EN ISO 2811-2 (20 °C)	1.08	kg/l
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)	79	-
Adhesive Tensile Strength	DIN EN 1542	> 1.5	N/mm²

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

VOC-Contents

The product complies with the high requirement to low VOC-contents, as required for sustainable construction. Therefore, these values exceed by far the European Union directive 2004/42/EG (decopaint-directive).

Reference to		Max. Value	Actual Content
Directive 2004/42/EG Decopaint directive	Component A	≤ 500	1.7 g/L
	Component B	≤ 500	0 g/L
DGNB German Sustainable Building Council	Components A + B	GISCODE RE 0/1	GISCODE RE 1
LEED Leadership in Energy and Environmental Design	Components A + B	< 100	92 g/L
Minergie Eco® Quality standard of the “Minergie society”, Switzerland	Components A + B	< 1 (< 2)	0.15%

Note: According to the decopaint-directive, single components are used for the calculation. For the quality rating system for sustainable construction the mixture of both components in the correct mixing ratio is the determining factor.

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