



You Build, We Protect!

HEGSEL® Pox 417

Rapid-Setting Epoxy Resin Emulsion

Description:

HEGSEL Pox 417 is a two-component, ready-to-use, rapid-setting and solvent-free epoxy resin emulsion. **HEGSEL Pox 417** is used as base coat prior to the application of water vapour permeable coatings and sealers. In combination with **HEGSEL Pox 482** and **HEGSEL Pox 433**, water vapour permeable coatings may be generated.

Use **HEGSEL Pox 417** predominantly when vapour tight base coats are not suitable. Necessary within the system on water vapour permeable coatings, e.g., on damp, early age concrete, magnesia substrate, susceptible to moisture and similar substrates.

The product cures by dehydration of the contained water and subsequent chemical cross-linking into a consistent, robust film with good adhesion. Due to its penetrating adjustment the substrate will be very well dampened, resulting in an excellent adhesive foundation for subsequent coatings. Absorbency will be reduced; dust will be bound. In addition, the subsequent coating will result in a smooth, sealed surface for spread coatings.

HEGSEL Pox 417 cures rapidly, within 2 - 7 hours, ready for subsequent coatings. The end of pot-life is not visible. Excellent adhesion on different substrates, like concrete, cement screed, magnesia and similar screed, as well as on older synthetic resin coatings. **HEGSEL Pox 417** results in a hard, physiologically harmless film.

The cured coating offers resistance to water, aqueous salt solutions, diluted acids and bases. Conditionally resistant to solvents.

Characteristics:

- Ready-to-use
- Convenient application
- Rapid-drying and curing
- Low-emission quality
- Solvent-free
- Excellent adhesion
- Water vapour permeable
- Easy to use
- Environmentally friendly

Applications:

- As base coat prior to the water vapour permeable coating **HEGSEL Pox 433**.
- For use on magnesia- and anhydrite-screeds.
- For coatings on "waterproof" substrates with increased moisture content.
- As base coat before sealing with e.g., **HEGSEL Pox 474** and **HEGSEL Pox 475**, as well as non-pigmented film-forming impregnation.

Application Data:

Mixing Ratio	Parts by Weight Parts by Volume	A : B = 1 : 3 A : B = 100 : 320			
Processing Temperature		Minimum 15°C (room -and floor- temperature)			
Further Coatings		After curing, but not longer than 48 hours at 20°C			
Consumption		Approx. 0.120 - 0.200 kg/m ² for each layer			
Colour		Non-pigmented			
Dilution		Ready-to-use			
		@Temperature	15°C	20°C	30°C
Curing Time	Accessibility		5 - 7 hrs	3 - 4 hrs	2 - 3 hrs
	Mechanical Load		-	1 - 2 days	-
	Chemical Load		-	7 days	-
Processing Time			40 min	30 min	20 min

Technical Data:

Title	Standard	Value	Unit
Viscosity (Components A + B)	DIN EN ISO 3219 (23 °C)	80	mPas
Solid Content	HEGSEL-Method	> 35	%
Flashpoint	DIN 51755	Non-flammable	
Density (Components A + B)	DIN EN ISO 2811-2 (20 °C)	1.05	kg/L
Adhesive Tensile Strength	DIN EN 1542	> 1.5	N/mm ²

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

Packaging:

Hobbock - Combi 25 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

- Shot-blast the substrate and vacuum thoroughly.
- Apply a base coat using **HEGGEL Pox 417**, consumption approx. 0.140 - 0.160 kg/m²
- Apply a scratch-coat using **HEGGEL Pox 482**, consumption approx. 0.6 - 1.0 kg/m². For very porous and rough surfaces, another trowel-applied coat must be applied if necessary.
- Apply **HEGGEL Pox 433** or an electrically conductive coat with **HEGGEL Pox 418** and **HEGGEL Pox 464**.

2. Surface Preparation

The substrate to be coated has to be levelled, surface-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. The surface to be coated should be prepared mechanically, preferably by shot-blasting. The surface strength has to be at least 1.5 N/mm². The prepared area has to be primed accurately. Note the product information for **HEGGEL Pox 482** and **HEGGEL Pox 433**. Estimating the substrate according to the necessary sealed state may be difficult, so a base coat using **HEGGEL Pox 417** and a subsequent coat using **HEGGEL Pox 482** is recommended. If the substrate hasn't been sealed completely bubbles and pores

may appear because of rising air. Older substrate has to be prepared mechanically and cleaned intensively. Conduct a trial if in doubt.

3. Mixing

The material has a ready-to-use consistency and may not be diluted. Combi-trading units will be supplied in the correctly measured mixing ratio. Component B has sufficient volume for the entire trading unit. Decant component A completely into the hardener B. 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, resulting in a whitish emulsion. To avoid mixing errors, it is recommended to empty the resin / hardener mixture into a clean container and mix briefly once again.

It is mandatory to stay within the stated processing time – (see chart “Processing time”).

Note: End of pot life is not visible!

4. Processing / Handling

As with all reactive resins process the mixed material immediately. Apply the material with a nylon roller when used as a base coat. Apply in an even thin closed coat on the substrate. Avoid ponding and uneven layers. If the substrate is very absorbent apply another layer.

Floor -and air- temperature must not fall below 15 °C and humidity must not exceed 75%. The suggested ambience conditions must be respected also during the curing

phase. 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. Exposure to water and chemicals must be avoided within the first 7 days. 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.

5. Cleaning

To remove fresh contamination and to clean tools, use water 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 labelled on the containers.

GISCODE: RE 1

7. Indication of VOC-Content

(EG-Regulation 2004/42)

Maximum Permissible Value 140 g/L (2010,II,i/wb): Ready-for-use product contains < 140 g/L VOC.

VOC-Contents

The product complies with the high requirements 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	≤ 140 g/L	0 g/L
	Component B	≤ 140 g/L	1.8 g/L
DGNB German Sustainable Building Council	Components A + B	< 3 %	1.3 %
Climate:Active Climate protection initiative of the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water	Components A + B	< 3 %	1.3 %
LEED Leadership in Energy and Environmental Design	Components A + B	< 100 g/L	14 g/L
Minergie Eco® Quality standard of the “Minergie society“, Switzerland	Components A + B	< 1 (< 2) %	1.3%

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.

HEGGEL Pox 417; Revision No: 1.10 / Last Revision Date: 18.09.2023

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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