

HEGSEL® Pox 404

Medium Viscosity Epoxy Resin

You Build, We Protect!

Description: HEGSEL Pox 404 is a two-component special epoxy resin, medium viscosity, colourless, unfilled, VOC < 500 g/L, free of nonylphenol.

- Characteristics:**
- Very deep penetration
 - Fast curing
 - Resistant to thermal deterioration
 - Thermal resistant
 - Very high mechanical resistance
 - Inert and harmless once cured
 - Resistant to mastic asphalt up to +250°C

Applications: HEGSEL Pox 404 is a special epoxy resin for damp concrete surfaces, “green” concrete and concrete surfaces where rising damp is expected. HEGSEL Pox 404 has been tested in accordance with TL/TP-BEL-EP of ZTV-BEL-B on old and green concrete. HEGSEL Pox 404 is suitable as primer and key coat. This particular chemical formulation will guarantee excellent adhesion between the substrate and subsequent coats.

Application Data:

| | | | | |
|--|------------------------|--|---------------------------|---------------------------|
| Mixing Ratio (Parts by Weight) | | A : B = 100 : 38 | | |
| Substrate Temperature | | minimum 8°C up to maximum 30°C | | |
| Material Temperature | | 15°C - 25°C | | |
| Maximum Relative Humidity of Air | | at 8°C: 75 % (dew point +3°C) at > 23°C: 85 % (dew point +3°C) | | |
| Consumption | | 2 x 0.4 - 0.5 kg/m ² , always sprinkle with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m ²). | | |
| Colour | | Clear | | |
| | | @Temperature | | |
| | | 8°C | 23°C | 30°C |
| Curing Time | Foot Traffic | 24 hrs. | 12 hrs. | 6 hrs. |
| | Mechanical Load | 48 hrs. | 16 hrs. | 12 hrs. |
| | Chemical Load | 5 days | 3 days | 2 days |
| Pot Life (Approx.) | | 40 min | 25 min | 15 min |
| Duration Between Applications (If sprinkled with quartz sand, the duration will increase) | | min.16 hrs max. 36 hrs | min. 6 hrs max. 24 hrs | min. 3 hrs max. 12 hrs |

Note: All above values are approximate and may be used as a guideline for specifications

Technical Data:

| Title | Value | Unit |
|---|--|-------------------|
| Density (23°C) | Approx. 1.10 | g/cm ³ |
| Volume Solids | Approx. 100 | % |
| Viscosity (23°C) | Approx. 700 ± 100 | mPas |
| Compressive Strength DIN EN ISO 604 | 60 - 90 (depending on filler ratio) | N/mm ² |
| Shore D - Hardness DIN EN ISO 868 | > 80 | - |
| Glass Transition Temperature | > 50 | °C |
| Tensile Strength DIN EN ISO 178 | > 30 | N/mm ² |
| Water Absorption | < 1.0 | % |
| First Contact with Water (23°C) | After 24 hours | - |

Packaging: 25 kg - kits (18.12 kg component A + 6.88 kg component B)
200 kg - barrel
1000 kg - container

Storage: 12 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C. At temperatures < 10°C crystallisation is possible. Please consult us.

1. Surface Preparation

Prior to the application the substrate must be prepared by mechanical means e.g., shot blasting or high-pressure water jetting.

Minimum requirements:

- Free of cement laitance, dust, oil, fat and other contaminants
- Open textured, absorbent surface
- Pull off strength min: 1.5 N/mm²
- Concrete residual moisture max: 6 %
- Substrate temperature > 8°C

See also "general preparation and application instructions" sheet.

2. Application

Prior to mixing, the temperature of the components must be between 15 - 25°C. Mix the components in the correct ratio using a suitable low speed electric mixer (300 - 400 rpm) for at least 3 minutes or until a completely homogeneous mixture has been achieved. Put the mixed material into a clean container and mix again for at least 1 minute more. After mixing, fillers can be added whilst stirring constantly. Distribute the mixture immediately onto the surface. Depending on the condition of the substrate we recommend applying a primer and a key coat or a filled primer. Use a rubber squeegee to spread the primer evenly and finish with a paint-roller. The key coat (1 : 0.8 up to 1 : 1 w/w) and the filled primer (1 : 1 up to 1 : 2 w/w) can be formulated using **HEGGEL Pox 404** and clean, dry, tempered quartz sand. The mixture should be applied by notched trowel or scraper. The applied coating must always be lightly sprinkled with clean, dry quartz sand Ø 0.4 – 0.8 mm (approx. 0.5 kg/m²).

Prior to, during and after the application, the temperature of the substrate must be at

least +3°C above the current dew point temperature.

Primer: approx. 0.4 – 0.5 kg/m².

Key coat: 1 : 0.8 up to 1 : 1 filled with clean, dry quartz sand Ø 0.1 - 0.3 mm.

Consumption: approx. 0.75 kg/m² resin plus clean, dry quartz sand.

Damp Concrete:

The damp concrete surfaces must be free of standing water. It must be ensured that there is no water on top of the concrete or in the pores. On concrete substrates where rising damp is evident, always apply a second coat of **HEGGEL Pox 404**.

3. System Description

The following figures are for ambient and surface temperatures of 15 - 23°C. Both high and low temperatures will influence the filler ratio and the consumption per m².

HEGGEL Pox 404 can be used in various ways. The most common applications are:

Primer / Seal coat:

As primer apply **HEGGEL Pox 404** with approx. 0.4 - 0.5 kg/m² and sprinkle the surface lightly with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m²). After curing, seal the surface with a second coat of **HEGGEL Pox 404**, but without sprinkle quartz sand.

Primer / Key coat:

As primer apply **HEGGEL Pox 404** using approx. 0.4 - 0.5 kg/m² and lightly sprinkle the surface with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m²). Depending on substrate conditions apply an additional primer or a key coat with **HEGGEL Pox 404** and sprinkle the surface lightly with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m²). Once cured it

is possible to apply any **HEGGEL Pox** or **HEGGEL Flex** system.

N/B:

The priming and sealing work may only be carried out at constant or falling temperatures, otherwise blistering and consequent leakage can occur.

The use of the product and the expected wear and tear will determine the choice of fillers.

N/B:

UV radiation cause discolouration.

4. Chemical Resistance

The product is resistant to:

- Diluted acids
- Water / sewage
- Alkalis
- Rising damp
- Mineral oil
- Mastic asphalt up to +250°C
- Saline solutions
- Lubricants and fuels (incl. aviation fuel)

5. Safety Measures

The material safety data sheets of the individual components, the safety instructions on the packing (label) as well as the legal requirements for handling hazardous materials must be observed.

GISCODE: RE55

6. EU Directive ("Decopaint-RL"):

Acc. to the EU Directive 2004/42/EG the maximum allowed content of VOC (Product category All / j / type SB) is 500 g/L (Limit 2010) for the ready to use product. This product is in accordance with the EU Directive 2010.

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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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