HEGGEL® Pox 496

Fast-Curing Epoxy Primer and Impregnation Coating

You Build, We Protect!

Description:

HEGGEL Pox 496 is a two-component epoxy-based primer and impregnation coating designed for use on concrete surfaces. The product provides fast curing for quick processing and handling and forms a mechanically strong priming layer to reduce damage risk and rework. It can be overcoated with compatible epoxy and polyurethane floor coatings to build durable, long-lasting concrete protection systems.

Characteristics:

- Easy application by roller or spray equipment
- Compatible with epoxy and polyurethane systems
- High abrasion resistance
- High mechanical impact resistance
- Fast curing
- VOC ≤ 315 g/L

Application Areas:

HEGGEL Pox 496 is suitable for use as a universal primer and impregnation layer on concrete substrates where fast processing, durable adhesion and high mechanical performance are required. It is recommended for concrete floor coating systems and may be used under compatible epoxy or polyurethane topcoats to provide long-lasting protection.

Application Data:

Finish	Silky gloss			
Colour	Standard colours, e.g. RAL, NCS; chrome- and lead-free colour range			
Mixing Ratio	Base : Activator = 3 : 1 (Parts by volume)			
Theoretical Consumption	~ 0.12 L/m^2 @ 80 µm DFT			
Practical Consumption	Depends on substrate porosity, roughness and application losses			
Standard Dry Film Thickness (DFT)	60 - 100 µm (depends on application process)			
Temperature	**5 °C**	**10 °C**	**20 °C**	**30 °C**
Pot Life	-	-	6 hrs	-
Drying Time (Dust free)	6 hrs	4 hrs	2 hrs	1 hr
Drying Time (Manageable)	30 hrs	16 hrs	8 hrs	6 hrs
Overcoat Interval	24 hrs	16 hrs	8 hrs	5 hrs

Note 1: All the provided values are approximate and should be used as guidelines for specifications.
Note 2: Drying times are based on 80 µm DFT. At higher film thicknesses, longer drying times must be considered.

Technical Data:

Title	Standard	Value
Solids Content (Mix)	-	~ 65 vol.%
Density (Mix) @ 20 °C	-	~ 1.45 kg/L
Temperature Resistance	-	Dry heat: Up to 120 °C

Packaging:

20 L cans and 200 L drums
HEGGEL Pox 496 Thinner: 25 L cans and 200 L drums

Storage:

12 months, in sealed original containers under cool and dry conditions between 5 – 40 °C.
Protect from heat and freezing.

1. Surface Preparation

The finishing system shall be selected according to the substrate characteristics. The substrate must be clean, dry, free from oil, grease, and other contaminants, and mechanically sound to ensure durable adhesion and resistance to mechanical and thermal stresses. The surface strength shall be uniform and sufficient to prevent detachment of the coating together with the upper layer of the substrate.

Where possible, moisture penetration from below shall be prevented. For new concrete floors, the use of an impermeable membrane beneath the concrete is recommended. For concrete substrates receiving moisture-impermeable coating systems, the substrate moisture content shall not exceed 3%.

Proper floor preparation is essential to achieve optimal finish performance and long-term durability. Preparation may be carried out using physical, chemical, and/or mechanical methods, depending on the substrate condition, structural integrity, and the type and extent of contamination present. Typical preparation techniques include solvent cleaning to remove contaminants such as paint and adhesive residues, chemical cleaning or acid etching to remove contaminants and improve adhesion, and mechanical methods such as grinding, sanding, ultra-high-pressure water jetting, and abrasive blasting to remove weak or contaminated surface layers.

2. Environmental Conditions

Prior to, during, and after application of the coating, the substrate temperature shall be at least 3 °C above the dew point, and the relative humidity shall not exceed 80%. Ensure adequate ventilation during application and drying to reduce solvent vapours and achieve proper curing conditions. Furthermore, contact with moisture must be avoided throughout the application process.

3. Application Tools

Airless spray: Apply using standard airless spray equipment. Thin the material with **HEGGEL Pox 496 Thinner** at 0–10 vol.% if required. Operate at a pressure range of 140–160 bar and a nozzle size of minimum 0.015 inch. The achievable dry film thickness is in the range of 60–100 µm.

Airmix: Apply using standard airmix spray equipment. Thin the material with **HEGGEL Pox 496 Thinner** at 5–10 vol.% if required. Use a nozzle size of approx. 0.015 inch and operate at 70–100 bar. The achievable dry film thickness is 60–100 µm.

Brush / Roller: Thinning may be carried out using **HEGGEL Pox 496 Brush Thinner** or **HEGGEL Pox 496 Thinner** at 0–5 vol.% if required. Typically, a dry film thickness of approx. 60 µm per coat can be achieved using this procedure.

4. Mixing

Thoroughly mix the base component and activator using a mechanical mixing device. Ensure the temperature of the mixed material is maintained at a minimum of 15 °C during application.

5. Application

The coating is preferably applied by roller, airless spray, or airmix spray equipment. The product may be applied without thinning at temperatures of approx. 18–23 °C, depending on equipment and application conditions.

Where thinning is required, adjust the amount of thinner according to application equipment, application method and temperature of the mixed product.

Note 1: Clean all equipment immediately after application using **HEGGEL Pox 496 Thinner.**

Note 2: Contact with moisture shall be avoided during drying and curing. Water spillage during curing may cause white spots.

6. Typical System Build-Up

Please find below a typical coating system based on **HEGGEL Pox 496**. For project-specific coating recommendations and customized system designs, please contact HEGGEL.

Concrete surfaces:

Apply **HEGGEL Pox 496** as the primer at approx. 60 µm DFT, followed by **HEGGEL Flex 551** as the topcoat at approx. 60 µm DFT.

7. Repairing Defects

For touch-up of damaged or untreated areas, remove grease, oil, dirt and other contaminants using a suitable cleaning agent, such as **HEGGEL Cleaners.** Roughen the surface by appropriate mechanical means, including sanding, high-pressure water jetting, dry grit blasting or wet sandblasting. Smooth the transition between repaired and intact areas by sanding and scraping.
After sanding, remove all dust using clean, dry, oil-free compressed air. Then repair the area using the complete coating system in accordance with the coating specification. Minor surface damage may be repaired using the top coat only.

Note: Regular cleaning of the surface is recommended. The coating system should be inspected annually for defects, and any damage shall be repaired using the original coating system.

8. Safety Measures

HEGGEL Pox 496 (UN number: 1263) is in accordance with EU Directive 67/548/EEC and applicable hazardous substances regulations.

Ensure adequate ventilation during application and drying to reduce solvent vapours. This is necessary to achieve proper drying conditions and to protect applicators' health. Harmful and irritating in contact

with skin, eyes and by inhalation. In case of eye contact, immediately rinse thoroughly with water and seek medical attention. Do not eat, drink, or smoke while handling this product.

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.

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