HEGGEL® Pox 426

Electrostatically Dissipative Self-Levelling Epoxy Coating

You Build, We Protect!

Description:

HEGGEL Pox 426 is a two-component, electrostatically dissipative, pigmented epoxy self-levelling coating with crack-bridging capability and excellent chemical resistance. It is suitable for use as part of an electrostatically dissipative coating system for WHG-related (German Water Resources Act) containment areas, subject to project-specific review and verification of the applicable approval requirements. The coating system is based on technology tested in accordance with DIBt principles for applications subject to WHG requirements. Applicability to specific projects, including any approval requirements, shall be verified on a project-specific basis.

Characteristics:

- Electrostatically dissipative coating
- Crack-bridging properties
- High chemical resistance
- Very good mechanical properties
- Tough-hard
- Self-levelling
- Very good abrasion resistance
- Suitable for WHG applications
- Harmless in its fully cured state
- Compliant with DIN EN 61340-4-1
- VOC < 500 g/L

Application Areas:

HEGGEL Pox 426 is suitable for containment bunds, containment rooms, HBV and LAU facilities requiring electrostatically dissipative properties and chemical resistance. The coating is suitable for forklift traffic after full curing.

Application Data:

Colour	Pebble grey; ~ RAL 7032 (other shades available on request) **Note:** Minor colour and batch variations may occur due to raw material and production tolerances.		
Mixing Ratio	A : B = 4 : 1 (Parts by weight)		
Consumption	~ 2.4 - 2.6 kg/m²		
Temperature	**10 °C**	**20 °C**	**30 °C**
Pot Life	40 min	20 min	10 min
Curing Time (Walkable)	24-36 hrs	14-18 hrs	10-14 hrs
Curing Time (Mechanical Load)	-	2-3 days	-
Curing Time (Chemical Load)	14 days (12 °C)	7 days (23 °C)	5 days

Note: All stated values are laboratory-determined guideline values and do not constitute product specifications.

Technical Data:

Title	Standard	Value
Solids Content	-	> 99 vol.%
Density (Mix) @ 23 °C	-	~ 1.60 g/cm³
Viscosity @ 23 °C	-	~ 2,600 ± 300 mPa.s
Shore D Hardness	DIN 53505	~ 65 (After 7 days)
Water Absorption	DIN 53495	< 0.2 wt.%
Abrasion Resistance	ASTM D4060 (Taber CS-10/1000 cycles)	~ 50 mg weight loss
Electrical Resistance	-	~ 10^6 Ω

Packaging:

30 kg kit (24 kg Component A + 6 kg Component B)

Storage:

12 months, in sealed original containers under dry and cool conditions between 15 – 25 °C. Temperatures below 10 °C may cause crystallisation. Consult HEGGEL before use.

1. Surface Preparation

Before application, the substrate must be prepared mechanically by shot blasting using suitable equipment. The substrate must meet the following minimum requirements: it should be free of cement laitance, dust, oil, grease, and other contaminants, have an open textured and absorbent surface, a pull-off strength of at least 1.5 MPa, and a concrete residual moisture content shall be max. 4 wt.%

The substrate shall be prepared to a pore-free condition by applying a primer and an intermediate layer (scratch coat) using **HEGGEL Pox 495**. The electrically conductive intermediate layer **HEGGEL Pox 463** shall be applied evenly.

Earth connections shall be installed prior to the application of the conductive layer using properly connected copper conductors. Particular attention shall be paid to secure fixing and long-term durability.

2. Environmental Conditions

Before, during, and after application, the substrate temperature must be at least 3 °C above the current dew point and shall be maintained within a range of 10 °C to 30 °C. Ensure that the relative humidity is below 75% throughout surface preparation, application, and curing processes. In addition, the material temperature shall be maintained between 15 °C and 25 °C throughout processing.

3. Application Tools

- Mixing vessel
- Low-speed mixer
- Rubber or steel notched squeegee
- Spiked roller

4. Mixing

Before mixing, the temperature of the individual components shall be at least 15 °C. Mix the components in the correct ratio using a suitable low-speed electric mixer (300 - 400 rpm) for at least 3 minutes until a completely homogeneous mixture is achieved. Transfer the mixed material into a clean container and mix for an additional minute.

Fillers must only be stirred in homogeneously after mixing. The mixed material shall be applied over the surface immediately after mixing.

Note: Fillers must not be added as this may negatively affect the electrical conductivity of the coating.

5. Application

Apply **HEGGEL Pox 426** uniformly using a notched squeegee in the required layer thickness. Spiked roller treatment shall be carried out after approximately 10–15 minutes.

To avoid visible joints, always work wet-on-wet and define working areas before application begins.

6. Typical System Build-Up

The following figures apply to ambient and surface temperatures between 15 °C and 23 °C. Both higher and lower temperatures will affect the filler ratio and consumption per square meter and may affect the appearance.

- **Primer:**

As a primer, apply transparent **HEGGEL Pox 495** at ~ 0.3 – 0.4 kg/m².

- **Intermediate coat (scratch coat):**

HEGGEL Pox 495 + quartz sand mixture in a ratio of 1 : 0.8 parts by weight (Consisting of quartz flour (< 0.06 mm) and quartz sand (0.06–0.3 mm) in a mixing ratio of 1 : 1.4) Consumption: ~ 450 g/m².

- **Grounding contacts:**

Install grounding contacts at intervals of approximately 10 m radius and have them connected by a qualified electrician.

- **Conductive layer:**

HEGGEL Pox 463, black

Consumption: ~ 100–140 g/m²

- **Coating:**

HEGGEL Pox 426, pebble grey

Consumption: ~ 2.4–2.6 kg/m².

The coating system (consisting of **HEGGEL Pox 495** (primer and intermediate coat), **HEGGEL Pox 463**, and **HEGGEL Pox 426**) has a crack-bridging capability of 0.2 mm when a thixotropic agent is added (up to 2%) and 0.3 mm without the addition of a thixotropic agent. On vertical and inclined surfaces, up to 2% **HEGGEL Thixotropic Agent** may be added to the topcoat.

Note: UV radiation can cause discoloration.

7. Chemical Resistance

The coating demonstrates resistance to a broad range of chemical media. Further information regarding chemical exposure classes and the full designation of the test media is available upon request.

- Solvents
- Gasoline fuels (premium, regular, etc.)
- Aviation fuels
- Heating oil
- Diesel fuels
- Lubricants
- Hydrocarbons and benzene containing mixtures
- Benzene
- Salts and salt solutions
- Alcohols and glycol ethers
- Aromatic halogenated hydrocarbons
- Organic esters and ketones
- Aliphatic aldehydes
- Aqueous solutions of organic acids up to 10% and their salts
- Organic acids and their salts
- Mineral acids up to 20% and acid-hydrolysing salts
- Inorganic alkalis and alkaline-hydrolysing salts
- Aqueous solutions of inorganic non-oxidizing salts (pH 6–8)
- Amines and their salts in aqueous solution
- Aqueous solutions of organic surfactants
- Acyclic ethers
- Phosphoric acid 60%
- Nitric acid 15%

8. Safety Measures

Wear appropriate protective clothing, gloves, and eye/face protection. Ensure the working area is adequately ventilated. If the resin comes into contact with skin, wash immediately with plenty of water and soap. In case of eye contact, rinse thoroughly with plenty of water and seek medical advice. Do not eat, drink, or smoke while using the product, and keep it away from sources of ignition.

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.

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 Data Sheet is subject to change without notice.

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