

HEGSEL® Pox 407

Multi-Purpose Epoxy Zinc Primer

You Build, We Protect!

Description:

HEGSEL Pox 407 is a two-component multi-purpose epoxy zinc-primer for steel surfaces exposed to heavy mechanical wear. Used with low-solvent or solvent-free topcoats of HEGSEL Coating products, it ensures long-lasting durability.

Characteristics:

- Excellent corrosion protection
- Very good adhesion strength
- High abrasion and impact resistance
- Outstanding mechanical wear resistance
- Fast cure and harmless once cured
- Weather resistance

Applications:

HEGSEL Pox 407 provides excellent corrosion protection for industrial and marine environments, hydraulic steel structures, pipelines, and offshore or shipbuilding applications. As performance may vary with medium, temperature, concentration and layer thickness, please consult us before use. Not suitable for direct contact with acids or alkalis.

Chemical Resistance:

The coating offers chemical resistance under industrial and marine conditions, including exposure to water, seawater, brackish water, oils, fats, lubricants, fuels, mineral oil, and neutral salt solutions.

Application Data:

Mixing Ratio (Parts by Weight)	A : B = 16 : 1		
Colour	Red grey Note: Slight colour / batch differences may occur due to material and production variations.		
Layer Thickness	~ 60 - 80 microns DFT		
Consumption	Theoretical: 360 g/m ² @80 microns DFT Practical: 720 g/m ² @80 microns DFT		
@Temperature	10°C	23°C	30°C
Pot Life	6 hrs.	4 hrs.	2 hrs.
Duration to overcoat with 2-C-coating systems Note: in case of longer exposure, all contamination must be removed before application)	min.4 hrs. max. 6 months	min.3 hrs. max. 6 months	min.2 hrs. max. 6 months
Curing Time (Foot Traffic)	24 hrs.	12 hrs.	6 hrs.
Curing Time (Mechanical Load)	4 days	2 days	1 day
Curing Time (Chemical Load)	5 days	3 days	2 days

Note 1: All above values are approximate and may be used as a guideline for specifications

Note2: The information relating to practical consumption is calculated to include 50 % loss (without consideration of roughness depth) and the practical consumption depends on the conditions of the substrate. Applying a test area is recommend.

Technical Data:

Title	Standard	Value
Density (Mix)	@23°C	~ 2.50 g/cm ³
Solids Content	-	~ 56%
Viscosity (Mix)	@23°C	~ 500 mPa.s
Temperature Resistance	-	Wet: Max 50°C continuously, short-term up to +70°C Dry: Max 150°C continuously, short-term up to +180°C

Packaging:

17 kg - pails (16 kg part A + 1 kg part B)
Other pails are available on request.

Storage:

12 months, sealed in original containers under dry conditions and a temperature of 15 - 25°C.
Crystallization may occur at temperatures below 10°C. Please consult HEGSEL!

1. Surface Preparation

The steel surface to be coated must be dry and free from mill scale, debris, grease, oil, dust, rust, and any other contaminants that could affect adhesion (see DIN Report 28 on inspecting surfaces for invisible contaminants prior to coating). Welding beads must be removed, and seams and overlaps smoothed according to DIN EN 14879-1.

Surface preparation must be done by blast cleaning with angular grit as per DIN EN 12944-4 (ISO 8501-1/-2), achieving preparation grade Sa 2½. Use only approved abrasives. Required surface roughness is $R_{\text{VS}} (R_z) \geq 50$ microns or "medium (G)" as per DIN EN ISO 8503-2.

If in doubt, check for soluble contaminants using the Bresle method per EN ISO 8502-6 and EN ISO 8502-9 before coating.

2. Environment Conditions

Before, during, and after application, the substrate temperature must be at least 3°C above the current dew point and should range between 5°C and 30°C. Additionally, ensure that the relative humidity is below 80% throughout surface preparation, application, and curing processes.

3. Application Tools

- Airless spray
- Brush / Roller

4. Mixing

Before mixing, ensure the components' temperature is between 15°C and 25°C.

Thoroughly stir the components and mix them in the correct ratio using a suitable low-speed electric mixer (300–400 rpm) for at least 3 minutes until fully homogeneous. Transfer the mixture to a clean container and mix again for at least 1 more minute. After a 15 minute waiting period, stir briefly and the product is then ready for use.

5. Application

HEGSEL Pox 407 is typically applied using airless spray equipment; however, brush or roller application is suitable for small areas.

Airless Spray:

Efficient airless spray equipment with pressure ratio 1:68 should be used. A spray hose of approximately 20 meters (¾") plus 2 meters (¼") is recommended, with an inlet pressure of 2.5 to 4 bar. The nozzle size should be between 0.38 and 0.63 mm, with a spraying angle of 40° to 70°. When applying over a weldable shop primer, approximately 10% **HEGSEL Pox 407 Thinner** should be added. To ease spray application, especially in low temperatures, the use of insulated hoses is recommended.

Brush / Roller:

Recommended only for small areas, repairs, or edge pre-coating. Apply multiple coats as needed to achieve the required film thickness and desired appearance.

Note: The above-mentioned information is provided as a recommendation only and may be adjusted depending on the specific conditions of the site

6. Safety Measures

Since **HEGSEL Pox 407** is a solvent-containing coating, it is standard practice to ensure proper air circulation during and after application in enclosed areas until the coating has fully cured. The ventilation system must be capable of keeping solvent vapour concentrations below the lower explosion limit of any present solvents. Avoid inhaling the vapours.

Wear appropriate protective clothing, gloves, and eye / face protection. 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.

7. 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.

HEGSEL Pox 407; Revision No: 0.00 / Last Revision Date: 23.01.2025

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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