HEGGEL® Coat 160

Low-Aromatic MIO-Reinforced Epoxy Primer / Coating

You Build, We Protect!

Description:

HEGGEL Coat 160 is a two-component, high-solids, low-aromatic, EPA-compliant epoxy coating reinforced with micaceous iron oxide (MIO). It delivers excellent sealing performance, strong mechanical resistance, and very good corrosion protection. The formulation is designed to function both as a high-quality primer and as a coating with outstanding application properties. Its high-solids content and low-aromatic formulation make it ideal for projects where solvent emissions must be minimized and working conditions optimized, while also ensuring very low odour levels.

Characteristics:

- Exceptional corrosion protection
- Outstanding barrier performance
- Remarkable adhesion strength
- High flash point enhances safety during storage and application
- Low hazard product with favourable working conditions
- Superior flexibility
- High chemical resistance to water spills, a wide range of solvents, and chemicals
- Suitable for use in coating systems designed in accordance with NORSOK M-501
- Ready to spray at 70% volume solids
- VOC ≤ 250 g/l

Application Areas:

HEGGEL Coat 160 is specifically formulated to protect steel structures exposed to industrial environments or highly aggressive atmospheric conditions.

Application Data:

Finish	Silk gloss **Note:** The final gloss level is influenced by the substrate condition and applied film thickness, and may in some cases differ from the stated values.	
Colour	Standard micaceous iron oxide (MIO) shades	
Mixing Ratio	Base : Activator = 5 : 1 (Parts by volume)	
Theoretical Consumption	~ 0.12 l/m² @ 80 microns DFT	
Practical Consumption	For large areas: ~ 0.17 l/m² @ 80 microns DFT For small areas: ~ 0.23 l/m² @ 80 microns DFT **Note**: Performance in practice varies with site conditions; so, the stated consumption values should be used as guidelines for airless spraying.	
Standard Dry Film Thickness (DFT)	80-160 microns (depends on application process)	
Temperature	**10 °C**	**20 °C**
Pot Life	-	4 hrs
Drying Time (Dust Free)	3 hrs	2 hrs
Drying Time (Manageable)	24 hrs	16 hrs
Overcoat Interval	16 hrs	8 hrs

Note 1: All the provided values are approximate and should be used as guidelines for specifications.
Note 2: Drying times obtained using HEGGEL Activator at a dry film thickness of 100 µm. At higher film thicknesses, longer drying times must be considered.
Note 3: The maximum overcoating interval is unlimited, as long as the surface is clean and devoid of grease and oil.

Technical Data:

Title	Standard	Value
Solids Content (Mix)	-	~70 vol.% (depends on colour)
Density (Mix) @ 20 °C	-	~ 1.60 kg/l
Corrosion Resistance	Electrochemical Impedance Spectroscopy (EIS)	Rc = 3.7 × 10⁹ Ω (after 21 days)
Salt Spray Resistance	NORSOK M-501 / ISO 20340	4200 hrs
Adhesion Strength	ISO 4624 / ASTM D4541	Before salt spray: 15.4 After salt spray: 13.1 MPa
Temperature Resistance	-	Dry heat: Up to 150 °C
Outdoor Exposure	ISO 2810	5 years

Note: Corrosion resistance and salt spray resistance tests were conducted on HEGGEL multi-layer coating systems.

Packaging:

20 litre cans
HEGGEL Coat 160 Thinner: 25 litre jerry cans or 200 litre drums

Storage:

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

1. Surface Preparation

Steel: Steel surfaces shall be prepared to a cleanliness level of Sa 2½ in accordance with ISO 8501-1, with a blasting profile of 40–70 µm, or alternatively cleaned using power tools to a minimum standard of ISO St3 / SSPC SP3.

For untreated steel, surface preparation shall be carried out in accordance with ISO 12944-4 §6.2.3. All grease, oil, dirt, and other contaminants must first be removed using a suitable cleaning agent such as **HEGGEL Cleaners** applied with a high-pressure spraying pistol. The surface shall then be grit blasted to Sa 2½ according to ISO 8501-1. After blasting, all dust must be removed from the entire surface using clean, dry, oil-free compressed air. The first coating layer must be applied within 6 hours after blasting. If the final coating layer is to be applied on the construction site, additional precautions must be taken to maintain surface cleanliness and coating performance.

Hot dip galvanized: The surface must be prepared in accordance with ISO 12944-4, section 6.2.3.4.1 (sweep blasting with inert grit) and NEN 5254 for duplex systems. All grease, oil, and contaminants should be removed using a suitable cleaning agent like **HEGGEL Cleaners**. The entire galvanized surface must then be lightly sweep-blasted using an inert abrasive with a grain size of 0.3–0.5 mm, at a blasting pressure of 2.0–2.5 bar and a minimum nozzle diameter of 6 mm. After blasting, the surface should exhibit a uniform, matte appearance. Depending on the zinc coating thickness, a maximum of 5–10 µm of zinc may be removed, as specified in NEN 5254. Finally, remove all dust from the surface using clean, dry, oil-free compressed air. Apply first coating layer within 2 hours.

2. Environmental Conditions

Prior to, during, and after application of the coating, ensure that the substrate temperature is at least 3 °C above the dew point and the maximum relative humidity shall be below 80%. Furthermore, any contact with moisture must be avoided during application process.

3. Application Tools

Air Spray: For effective application, use conventional air spray equipment. Thin the material with **HEGGEL Coat 160 Thinner** at 0–5 by volume. Maintain a flow pressure of 3–4 bar for optimal operation. Use a nozzle size of 2.0–2.5 mm. The achievable dry film thickness is in the range of 80–160 µm.

Airless Spray: Apply using standard airless spray equipment. No thinning is 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 80–160 µm.

Air mix: Application may be carried out using Air mix spray equipment. No thinning is required. Maintain a flow pressure of 70–100 bar and use a nozzle size of minimum 0.015 inch. The recommended dry film thickness per coat is 80–160 µm.

Brush / Roller: Thinning may be carried out using **HEGGEL Coat 160 Thinner** at 0–5 vol.% if required. Typically, a film thickness of 80 microns 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 10 °C during application.

5. Application

The coating is preferably recommended to be applied using airless or air mix spray equipment, as brush application may result in variations in film thickness and reduced flow properties.

The product can be applied without thinning when using airless spray equipment at 18–23 °C.

Apply uniformly to achieve required dry film thickness.

Where thinning is required, the amount of **HEGGEL Coat 160 Thinner** should be adjusted to 0–5 vol.% depending on the equipment used, application method, and temperature of the mixed material.

Note: Under weathering conditions, **HEGGEL Coat 160** may exhibit chalking and discoloration. For enhanced durability, we advise using HEGGEL topcoats. Please consult HEGGEL!

Note: Clean all equipment immediately after application using **HEGGEL Coat 160 Thinner**.

6. Chemical Resistance

According to ISO 2812-1 / ISO 2812-2 / ASTM D543: (indicative, based on immersion testing)

- Distilled water
- Seawater
- Hydrochloric acid 10%
- Sodium hydroxide 10%
- Mineral oil

7. Repairing Defects

Touch-up of damaged or untreated areas shall be carried out on site. Remove grease, oil, and dirt using suitable cleaning agents like **HEGGEL Cleaners**. Remove rust from mechanically damaged areas, weld seams, weld spots, and heat-affected zones using rotating steel wire brushes, sanding discs, or coarse sandpaper to a minimum cleanliness grade St 3 in accordance with ISO 8501-1.

Smooth the transition between cleaned areas and adjacent intact coatings 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 Coat 160 (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 vapors. This is necessary to achieve proper drying conditions and to protect applicators' health. Causes skin and eye irritation and may be harmful if inhaled. In case of eye contact, immediately rinse thoroughly with water and seek medical attention. Do not eat, drink, or smoke while handling this product. Keep away from heat, sparks, and open flames.

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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