

# HEGSEL® Coat 104

Aluminium Mastic Epoxy Primer / Coating

*You Build, We Protect!*

**Description:**

**HEGSEL Coat 104** is a two-component anti-corrosive aluminium mastic primer / coating, based on special epoxy resins and a modified phenalkamine curing agent. Application possible at high relative humidity, resistant to abrasion, chemical impact and water immersion (in compliance with Norsok M-501).

**Characteristics:**

- High chemical resistance
- Immersion qualified
- Abrasion resistant
- High solid content
- Excellent mechanical properties
- Splash zone resistant
- Temperature resistance up to 200°C (dry)
- Good curing at low temperatures (5°C)
- In compliance with Norsok M-501, Edition 6, System 7B
- In accordance with ISO 12944: Corrosivity classes C5-I, C5-M, IM-1, IM-2, IM-3

**Applications:**

External coating for offshore and onshore constructions, Splash zones, Tubes, pipes and valves, all steel structures in contact with sea water (immersed)

**Application Data:**

<b>Mixing Ratio (Parts by Weight)</b>	A : B = 0.75 : 1	
<b>Mixing Ratio (Parts by Volume)</b>	A : B = 1 : 1	
<b>Finish</b>	Eggshell gloss	
<b>Colour</b>	Aluminium	
<b>Recommended Dry Film Thickness (DFT)</b>	80 - 250 µm (Depends on application process)	
<b>Theoretical Consumption</b>	Approx. 0.14 kg/m <sup>2</sup> @80 microns DFT	
<b>Substrate Temperature</b>	Minimum +10°C and minimum +3°C above dew point	
<b>Relative Humidity of Air</b>	Maximum 90 %	
<b>@Temperature</b>	<b>10°C</b>	<b>20°C</b>
<b>Curing Time (Dust Free)</b>	6 hrs	4 hrs
<b>Curing Time (Manageable)</b>	30 hrs	16 hrs
<b>Recoat Time</b>	16 hrs	8 hrs
<b>Pot Life</b>	-	4 hrs

**Note 1:** Waiting time under continuous pressure may reduce pot life!

**Note 2:** All above values are approximate and may be used as a guideline for specifications.

**Note 3:** Dry times: at 55 % RH and a standard dry film thickness of 250 µm. Maximum interval unlimited provided the surface is clean and free of grease and/or oil. At a higher dry film thickness longer drying time should be taken in account. During drying and curing the relative humidity should remain under 90%. Furthermore, any contact with moisture must be avoided during this period. In case of water spillage during the curing cycle white spots may occur

**Technical Data:**

Title	Value	Unit
<b>Mixed Density (20°C)</b>	Approx. 1.40	g/cm <sup>3</sup>
<b>Solids Content</b>	82	Volume %
<b>VOC</b>	≤ 160	g/L
<b>Sea Water Resistance</b>	NORSOK M-501, Edition 6, System 7B	-
<b>Salt Spray</b> ISO 9227-NSS / ASTM B 117	> 5500	Hrs
<b>Corrosion Resistance</b> TNO Electrochemical Impedance Spectroscopy	R <sub>c</sub> 1.30*10 <sup>8</sup> , n=0.98 (21 days)	-
<b>Adhesion</b> ISO 4624 / ASTM D4541	13 / 11	MPa

**Packaging:**

13.6 kg kits

**Storage:**

12 months, unopened in original drums under dry and cool conditions between 5°C and 40°C provided with adequate ventilation. Protect from heat and freeze!

## 1. Surface Preparation

### Preliminary treatment, steel untreated

The surface needs to be pre-treated according ISO12944 part 4 § 6.2.3. Remove grease, oil, dirt etc. using an appropriate cleansing agent and a high-pressure spraying pistol. Grit blasting to purity degree Sa 2½ in accordance with ISO 8501-1. After blasting remove all dust from the entire surface with compressed air which is free of moisture and grease. Apply first coating layer within 6 hours. In case the final coating layer is applied on the construction site, extra precautions need to be taken.

### Preliminary treatment, hot dip galvanised surface

The surface needs to be pre-treated according ISO 12944 part 4 §6.2.3.4.1 (sweep blast, with inert grit). Remove grease, oil, dirt etc. using an appropriate cleansing agent. Lightly blast the entire zinc surface with an inert blasting agent (grain size: 0.3 - 0.5 mm, blasting pressure: 2.0 - 2.5 bar, nozzle opening: 6 mm minimum).

After blasting, the entire surface must have a uniform flat appearance. Depending on the zinc layer thickness, max. 5 - 10 µm of zinc can be removed. After blasting remove all dust from the entire surface with compressed air which is free of moisture and grease. Apply first coating layer within 2 hours.

### Touch up

Touching up of damages or untreated parts at the construction site. Remove grease, oil, dirt etc. using an appropriate cleansing agent. Remove the rust from all mechanical damage with rotating steel wire brushes, sanding discs or steel wire brushes and coarse sandpaper to purity degree St3, in accordance with ISO 8501-1.

Smooth the transition of cleansed parts to parts with intact coats of paint by sanding and scraping.

After sanding, remove all dust from the entire surface with compressed air which is free of moisture and grease. Then touch up the object with the entire paint system, as described in this paint advice. Touch up light surface damages only with the product of the top coat, as described in the paint advice.

## 2. Mixing

Mix Part A+B intensively, preferably using a mechanical mixing device. The temperature of the mixed product should at least be 5°C during application.

## 3. Application Method

Preferably by means of airless or airmix spray equipment. When using brushes, a different film thickness and possibly inferior flow will be achieved.

Keep application area well ventilated during application and drying, in order to reduce evaporated solvents.

## Airless spraying

Thinner: n.a. / Quantity: 0 vol. % / Nozzle: 0.015 - 0.017"/ Flow pressure: 150 - 175 bar / DFT: 80 - 250 µm

### Air Mix

Thinner: **HEGGEL Coat 104** Thinner / Quantity: 5 - 10 vol. % / Nozzle: 0.015 - 0.017"/ Flow pressure: 70-100 bar / DFT: 80 - 250 µm

### Air Spray

Thinner: **HEGGEL Coat 104** Thinner / Quantity: 5 - 10 vol. % Nozzle: 2.0 - 3.0 mm / Flow pressure: 3 - 4 bar / DFT: 80 - 250 µm

### Brush / Roller

Thinner: **HEGGEL Coat 104** Thinner / Quantity: 0 - 5 vol. % / DFT: 80 µm

**Note:** The paint can be applied without thinning when using airless spray equipment (18-23°C). The eventual necessary amount of **HEGGEL coat 104** Thinner depends on used equipment, application method and temperature of the mixed product. The Thinner should also be used to clean and flush equipment immediately after application.

## 4. 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. The product is flammable and should be kept away from sparks, open flames, and other sources of ignition. Smoking is prohibited in the application area. Wear suitable respiratory equipment and apply in well ventilated areas. Avoid contact with skin and eyes.

**HEGGEL Coat 104**; Revision No: 0.10 / Last Revision Date: 05.07.2023

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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