

# HEGSEL® Coat 122

Epoxy Based Coating with Bionic Technology

*You Build, We Protect!*

**Description:**

**HEGSEL Coat 122** is a two-component epoxy coating with **HEGSEL - bionic technology**, free of benzyl alcohol and nonylphenol and VOC < 1 %. **HEGSEL Coat 122** is an innovative, economical, abrasion resistant coating which is especially suitable as corrosion protection of steel constructions for hydraulic engineering.

**Characteristics:**

- Very good corrosion protection
- Very high abrasion resistance
- Low viscosity
- Very good adhesion strength
- No shrinkage by migration of plasticizer
- Inert and harmless once cured

**Applications:**

Due to the very good corrosion protection properties, **HEGSEL Coat 122** is suitable for large-scale applications in atmospheric corrosion protection. **HEGSEL Coat 122** must be applied by using brush, roller or airless spray equipment (optional with a flow heater); multiple application is recommended to achieve a high dry film thickness.

**Application Data:**

<b>Mixing Ratio (Parts by Weight)</b>	A : B = 7 : 1		
<b>Mixing Ratio (Parts by Volume)</b>	A : B = 4 : 1		
<b>Colour</b>	Silk grey, dusty grey, black (Other colours are available on request.)		
<b>Theoretical Consumption</b>	500 g/m <sup>2</sup> (At 300 microns DFT) resp. 2.1 m <sup>2</sup> /kg (Approx. 3.3 m <sup>2</sup> /L)		
<b>Practical Consumption</b>	700 g/m <sup>2</sup> (At 300 microns DFT) resp. 1.5 m <sup>2</sup> /kg (Approx. 2.4 m <sup>2</sup> /L)		
<b>Layer Thickness</b>	Approx. 250 - 350 microns DFT per layer We recommend minimum 2 x 250 microns in an interval of 24 hours to get a good adhesion between both layers.		
<b>Substrate Temperature</b>	Minimum 10°C up to maximum 40°C		
<b>Material Temperature (Flow heater if required)</b>	20°C - 30°C		
<b>Maximum Relative Humidity of Air</b>	85%		
<b>Dew Point - Substrate Temperature</b>	Minimum +3°C above dew point		
<b>@Temperature</b>	<b>10°C</b>	<b>23°C</b>	<b>30°C</b>
<b>Pot Life</b>	40 min	25 min	20 min
<b>Curing Time (Foot Traffic)</b>	24 hrs	12 hrs	6 hrs
<b>Curing Time (Mechanical Load)</b>	72 hrs	48 hrs	24 hrs
<b>Curing Time (Chemical Load)</b>	7 days	5 days	3 days
<b>Duration to Overcoat with Itself</b>	min. 12 hrs max. 48 hrs	min. 6 hrs max. 24 hrs	min. 3 hrs max. 12 hrs

**Note 1:** The information relating to practical consumption / coverage is calculated to include 30 % loss. The practical consumption / coverage depends on the conditions of the substrate. We recommend to apply a test area.

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

**Note 3:** Due to raw material variations and manufacturing techniques, a slight colour / batch difference may occur

**Technical Data:**

Title	Value	Unit
<b>Density (23°C)</b>	Approx. 1.65	g/cm <sup>3</sup>
<b>Volume Solids</b>	Approx. 100	%
<b>Viscosity (23°C)</b>	Approx. 2800 ± 600	mPas

**Packaging:**

4 kg - pails (3.5 kg component A + 0.5 kg component B)

16 kg - pails (14 kg component A + 2 kg component B), other pails are available on request.

**Storage:**

12 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C. At temperatures < 10°C crystallisation is possible. Please consult us.

## 1. Surface Preparation

The steel surface that is to be coated must be dry and free of mill scale, debris, grease, fat, oil, dust, areas of corrosion / rust as well as other contaminants which may impair the adhesion (see DIN report 28 "corrosion protection for steel constructions by using coating systems - testing the surface regarding to invisible contaminants before application"). Welding beads must be removed, welding seams and welding overlaps must be smooth in accordance with DIN EN 14879-1. Surface preparation by blast cleaning (with tough grit) in accordance with DIN EN 12944-4 (ISO 8501-1/-2), preparation grade Sa 2½. Use only approved blasting abrasives with angular grain. Average roughness R<sub>ys</sub> (Rz) ≥ 50 microns respectively "middle (G)" in accordance with DIN EN ISO 8503-2 (ISO 8503-2). Prior to, during and after surface preparation, application and curing the substrate temperature must be minimum +3°C above the dew point (see dew point table). In case of doubt the surface cleanliness must be measured regarding soluble contaminants in accordance with EN ISO 8502-6 (Bresle method) and EN ISO 8502-9 prior to coating.

## 2. Preparation of Material

### Airless spray resp. brush / roller:

The temperature of the components must be at least 20°C. Stir the components thoroughly and mix in the correct ratio using a suitable low speed electric mixer (300 - 400 rpm) for at least 3 minutes or until a completely homogeneous mixture has been achieved. Put the mixed material into a clean container and mix again for at least 1 minute more.

## 3. Application Method

### (Use without thinner!)

#### Airless spray

Efficient airless spray equipment

- Pressure ratio: minimum 1 : 68
- Spray hose: approx. 30 m ¾" + 2 m ¼"

- Inlet pressure: 3 - 5 bar
- Nozzle size: 0.43 - 0.64 mm (0.017" up to 0.025")
- Spraying angle: 40 - 70°

We recommend to remove the high-pressure filters and to pump the material directly without a siphon tube.

**Attention!** To ensure a proper application at low temperatures a hose insulation and a flow heater have to be used.

**N/B:** At low temperatures it is necessary to use insulated hoses and a flow heater! Please use a plural component airless spray equipment, if a longer spray hose distance (> 30 m) and an independent application time / pot life is required.

#### Brush / roller

Recommended for small areas, repairs or to precoat edges, only. Repeat the coats until sufficient film thickness is obtained. Normally a film thickness of 150 - 250 microns per coat can be obtained by this method.

If required, a primer layer with an epoxy zinc primer can be applied.

In exposure to weathering, **HEGGEL Coat 122** tends to chalking and discolouring. In case of higher demand, we recommend to use a **HEGGEL Flex** or **HEGGEL Coat - topcoat** (1 - 2 x).

The a. m. information are recommendations only and may be adjusted depending on the conditions of the object.

## 4. Resistance

### Mechanical

- Impact resistant
- High abrasion resistant

### Thermal

- Dry heat up to +100°C continuously, short-term up to +150°C
- Wet heat up to +50°C continuously, short-term up to +70°C

## Chemical

- Industrial and marine conditions
- Water, seawater, brackish water
- Oil, fat and lubricants
- Diluted acids, alkalis
- Neutral salt solutions
- Alkalis, lyes

Due to the fact that the resistance of the coating can be affected by various factors (medium, temperature, concentration, layer thickness, etc.) we recommend to consult us prior to application.

## 5. Clean up Machine

To clean and flush the spray equipment / machine we recommend to use **HEGGEL Coat 122 SOL** - cleaner with a temperature of approx. 30 - 40°C.

## 6. Safety Measure

While **HEGGEL Coat 122** is a (nearly) solvent free coating, it is common practice when used in enclosed areas to circulate the air during and after the application until the coating is cured. The ventilation system should be capable of preventing any solvent vapour concentration from reaching the lower explosion limit for any solvents that may be present. Avoid inhalation of the vapours. Wear suitable protective clothing, gloves, eye / face protection and suitable respiratory equipment. Adequate ventilation of the working areas is recommended. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When using do not eat, drink, smoke and keep away from sources of ignition. For additional references to safety-hazard warnings, regulations regarding the transport and waste management please refer to the relevant Safety Data Sheet.

**GISCODE: RE30**

**HEGGEL Coat 122**; Revision No: 1.10 / 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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