

# HEGGEL® Corr 215

Advanced Corrosion Barrier Coating

*You Build, We Protect!*

**Description:**

**HEGGEL Corr 215** is a two-component corrosion protection coating engineered for resilience in ambient aqueous environments. Optimized for application on moist steel and concrete substrates, its primary protection is against seawater challenges. Additionally, its advanced formulation ensures protection against turbulent flow dynamics, cavitation phenomena and abrasive particulate interactions.

**Characteristics:**

- Superior resistance against seawater and mildly corrosive acidic/alkaline conditions
- High abrasion resistance
- Suitable for in-situ application on operational equipment
- Superior cavitation resistance
- Self-priming single / multi-layer system
- Excellent adhesion to steel and concrete with minimal preparation
- Superior anti-fouling performance
- Exceptional UV resistance and weathering characteristics

**Applications Areas:**

- Substrates subjected to chlorinated water and seawater at ambient and elevated temperatures
- Subsea structures
- Cooling water pipes / spools / valves
- Bow thrust channels
- Splash zone surfaces
- Buried flow lines
- Piles
- Seawater intake valves

**Chemical Resistance:**

- Sulphuric acid 30%
- Sodium hypochlorite 15%
- Glacial acetic 20%
- Phosphoric acid 50%
- Nitric acid 10%
- Hydrochloric acid 20%
- MEK, Toluene, Xylene, Acetone, Ammonia
- Sour crude oil, Kerosene

**Application Data:**

<b>Finish</b>	Glossy		
<b>Colour</b>	Cream, White, Grey, Metallic Grey		
<b>Number of Coats</b>	1 - 3		
<b>Practical Consumption</b>	Approx. 0.5 kg/m <sup>2</sup> @300 microns DFT		
<b>Typical Dry Film Thickness</b>	300-2000 microns DFT		
<b>@Temperature</b>	<b>20°C</b>	<b>30°C</b>	<b>40°C</b>
<b>Pot Life</b>	85 min	65 min	55 min
<b>Tack Free / Drying Time</b>	240 min	-	-

**Note 1:** The practical consumption and DFT are subject to specific project conditions and will adjust accordingly to ensure optimal results. Please consult HEGGEL!

**Note 2:** All the provided values are approximate and should be used as guidelines for specifications.

**Technical Data:**

Title	Standard	Value
<b>Density (Mix)</b>	-	1.35 g/cm <sup>3</sup>
<b>Mixed Viscosity</b>	20°C	50,000 ± 5,000 cPoise
<b>Solids Content</b>	-	100%
<b>Abrasion Resistance</b>	ASTM D4060 (Taber CS-17/1kg/1000 cycles)	12 mg weight loss
<b>Impact Resistance</b>	ASTM G14	Forward: 18 Joules Reverse: 7 Joules
<b>Elongation to Break</b>	BS 6319 Part 7 1985	5.0%
<b>Tensile Strength</b>	BS 6319, Part 7, 1985	29.4 MPa
<b>Compressive Strength</b>	BS6319, Part 2, 1983	85.3 MPa
<b>Adhesion Strength</b>	ASTM D4541	18.6 MPa (cohesive failure)
<b>Temperature Resistance</b>	NACE TM0174	Immersed: +80°C Non-Immersed: +150°C

**Packaging:**

3, 5, 10 and 20 kg kits

**Storage:**

36 months in sealed original containers under dry and cool conditions.  
Protect from heat and freeze!

## 1. Surface Preparation

Optimal product performance is dependent on meticulous surface preparation. First, grit blast the surface to eliminate existing corrosion or prior coatings. Follow with high-pressure water jetting to expunge chemical contaminants and soluble salts. After drying, reblast manually to achieve a minimum SA 2 cleanliness and a 40-micron blast profile. Utilize a vacuum for thorough dust and grit removal. Post-preparation, apply the coating promptly, ensuring the safeguarded surface remains uncontaminated from adjacent sources.

## 2. Mixing

To ensure optimal performance of the product, thorough mixing is essential. Make sure both base and hardener components are kept above 20°C before mixing, and always keep the materials in a shaded area before, during and after mixing. Upon opening the base tin, any substance on the lid must be incorporated into the tin. Gradually incorporate the hardener into the base, ensuring a slow stirring motion by the power mixer. Once the entirety of the hardener has been seamlessly added, elevate the power mixer's speed to its maximum. Proceed with this for an additional 2-3 minutes, while concurrently using a sturdy spatula or palette knife to scrape the interior walls of the container. This method ensures comprehensive blending of all materials.

The usability of the mixed material lasts for a duration approximately equal to the pot life.

## 3. Environmental Conditions

Prior to the application of the coating, make sure that the temperature of the surface is no less than 15°C, the temperature of the air is at least 3°C above the dew point, and ensure the relative humidity is less than 95%.

In case the substrate's temperature falls below 15°C, it may be necessary to use external heating to elevate the ambient temperature and subsequently heat the substrate. For outdoor applications, create

an enclosure around the equipment to be coated using plastic sheeting and then pump warm air into this enclosed area. Be careful to prevent recontamination of the surface which is prepared from close sources. Avoid applying the coating in windy conditions unless there is no other choice; in these instances, encase the equipment in plastic sheeting as mentioned earlier.

Maintain the temperature above 15°C for the initial 24 hours of the curing process.

## 4. Application Tools

Medium pile roller or airless spray

## 5. Application

Apply a stripe coat to corners, edges, and welds. Objects that are challenging to access must be thoroughly coated using a brush. Apply **HEGGEL Corr 215** (Brush Grade) by brushing it thoroughly into the substrate for optimal wet out, then proceed to build the film to the designated thickness in the required number of coats, ensuring uniform coverage. Frequently monitor the wet film thickness with the help of a wet film thickness gauge particularly when dealing with concrete substrates where it is not feasible to measure DFT.

If a second coat is required, apply it once the initial coat reaches a tack-free state. Subsequent to application, promptly cleanse the brush using MEK or acetone-based solvents.

## 6. Quality Control

24 hours after application on steel surface, inspect the integrity of the applied coating utilizing a holiday detector, set at an operating voltage of 50V for every 25 microns of coating thickness. An inductance type electronic dry film thickness tester can be employed to provide a quantitative assessment of the dry coating thickness.

## 7. Repairing Defects

If the coating has been applied 25% beneath specification, repairs should be

made. Use a distinctive marker pen to identify pinholes, misses, and areas with thin coating for repair. Any loose material surrounding the defect must be removed to leave behind firmly adhered coating. Subject the defect to spot grit blasting until at least SA 2 cleanliness and a minimum profile of 40 microns is achieved. Also, it is imperative to sweep blast 5cm of the surrounding sound coating to create a rough surface as repair overlap. Prior to applying the repair of **HEGGEL Corr 215** clean the blasted area with xylene. Brush firmly into the surface profile to ensure complete wet out and then build to required thickness in a single coat. Apply the repair mix firmly into the surface profile with the brush to guarantee complete wet out, subsequently building to the needed thickness in a single layer.

## 8. Curing Time Schedule

After approximately 240 minutes the applied coating would be touch dry at 20°C. Unless specified differently, permit a minimum of 3 to 4 days for full curing prior to environmental exposure.

## 9. Recommended Coating System

- Internals of equipment exposed to seawater/chemicals:  
1-2 coats @1000-2000 microns total DFT
- Externals of equipment exposed to seawater/chemicals:  
1 or 2 coats @300-400 microns total DFT
- Externals of equipment exposed to flowing seawater /entrained solids:  
1 or 2 coats @800-1000 microns total DFT

**Note:** Values here are general guidelines only. As Dry Film Thickness (DFT) determination varies with project-specific conditions and requirements, consult HEGGEL for precise application accuracy.

## 10. 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.

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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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