

HEGSEL® Corr 260

Ultra-Smooth Flow-Reducing Coating

You Build, We Protect!

Description:

HEGSEL Corr 260 is a two-component ultra-smooth coating, designed to enhance energy efficiency and prolong the service life of critical equipment. Its hydrophobic nature creates a frictionless surface that not only improves fluid flow but also effectively resists cavitation, erosion, fouling, and sludge build-up. When used as a surface coat alongside **HEGSEL Fix** products, it can prolong equipment life and enhance its initial engineering performance specification. This can lead to reduced equipment maintenance costs and energy consumption, ultimately lowering overall operational expenses.

Characteristics:

- Enhances efficiency of pumps, infrastructure, and equipment by minimizing flow resistance, suitable for both new and old equipment
- Prevents the build-up of fouling and sludge
- Self-priming and strong adhesion to rubber, urethane, steel, stainless steel, cast iron, copper, bronze, aluminium, alloys and concrete
- Outstanding sliding abrasion resistance
- Superior durability against impact from particles, both in dry conditions and suspended in fluid
- Suitable as a top layer following repairs with **HEGSEL Fix 831** and **HEGSEL Corr 250**
- Ideal for top coating following comprehensive anticorrosion treatment with **HEGSEL Corr 215**.

Application Areas:

- Impellers, pumps, filters, strainers
- Turbine runners, multi-stage pumps, marine equipment
- Valves, bow thrust channels
- Critical sections of pipes carrying hydrocarbons, water, and gas

Chemical Resistance:

- Crude Oil and Gas (sweet or sour)
- Kerosene
- Sulphuric acid 10%
- Hydrochloric acid 10%
- Nitric acid 5%
- Sodium hydroxide 50%
- Sodium hypochlorite 15%
- Methanol
- Demineralised water
- Sea water

Application Data:

Finish	Smooth and Glossy
Colour	White, Black, Red
Number of Coats	2
Consumption	Approx. 0.42 kg/m ² @250 micron DFT
Typical Wet Film Thickness	250 microns
Pot Life (20°C)	25 min
Initial Set / Drying Time (20°C)	240 min
Dry Service Time (20°C)	3 days
Immersion Service Time (20°C)	7 days

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

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

Technical Data:

Title	Standard	Value
Density (Mix)	-	1.45 g/cm ³
Mixed Viscosity	-	40,000 ± 5,000 cPoise
Solids Content	-	100%
Abrasion Resistance	ASTM D4060 (Taber CS-17/1kg/1000 cycles)	8 mg weight loss
Barcol Hardness	ASTM D2583	45
Adhesion Strength	ASTM D4541	24.52 MPa (cohesive failure)
Elongation to Break	BS 6319 Part 7 1985	50%
Impact Resistance	ASTM G14	Forward: 25 Joules Reverse: 15 Joules
Temperature Resistance	NACE TM0174	Immersed: +60°C Non-Immersed: +120°C

**Packaging:
Storage:**

1 and 5 kg kits
72 months in sealed original tins under dry and cool conditions at temperatures 5 - 35°C.
Protect from heat and freeze!

1. Surface Preparation

To effectively prepare a surface for coating, initially use a metal scraper to remove any loose rust and dirt. Clean the surface of oil or grease using solvents like methyl ethyl ketone (MEK) or acetone, ensuring no residue is left post-evaporation. For optimal adhesion, roughen the surface using tools such as a needle gun, angle grinder, or preferably through grit blasting with angular grit to achieve a minimum blast profile of 50 microns and attain an SA 2.5 level of surface cleanliness. Afterward, eliminate any residual dirt and grit with a vacuum. Surfaces previously immersed in salt water should be thoroughly rinsed with fresh water prior to blasting. Immediate coating of the prepared surface is crucial to prevent oxidation and contamination.

2. Mixing

To ensure optimal performance of the product, thorough mixing is essential. Make sure both base and hardener components are kept below 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 with 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 one minutes, while concurrently using a 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. Refrain from mixing a quantity of material that exceeds what can be used within the pot life span. Do not mix more material than can be used within the pot life period.

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 80%. 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.

4. Application Tools

Stiff bristle brush

5. Application

If the surface is heavily pitted, use **HEGGEL Fix 831** or **HEGGEL Corr 250** for repair. Once dry, apply **HEGGEL Corr 260** within 4 hours. Stripe coat corners and edges, pressing the coating into the substrate to ensure complete wetting, then apply to the specified dry film thickness (DFT). Ensure the coating aligns evenly with the component's original surface. If a second coat is required, apply it on the same day; otherwise, gently roughen the cured coating's surface before applying another layer. Immediately clean the brush or trowel with MEK or acetone-based thinners after coating.

6. Quality Control

24 hours after application, inspect the integrity of the applied coating utilizing a holiday detector, set at an operating voltage of 100 V/mil (DC). 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 the bare metal surfaces with at least Sa 2.5

cleanliness and a minimum profile of 50 microns is achieved. Also, it is imperative to sweep blast 5 cm of the surrounding sound coating to create a rough surface as repair overlap. Prior to applying the repair of **HEGGEL Corr 260** clean the blasted area with xylene. Brush firmly into the surface profile to ensure complete wet out and then build to required thickness. Apply the repair mix firmly into the surface profile with the brush to guarantee complete wet out, subsequently building to the needed thickness.

8. Curing Time Schedule

After approximately 240 minutes the applied coating would be touch dry at 20°C. A minimum curing period of 7 days at 20°C should be provided before exposing to a chemical load.

9. Recommended Coating System

- Long-term protection of pump internals in turbulent flow sea water service at temperatures below 60°C:
 - First coat: **HEGGEL Corr 215**
@800 microns DFT
 - Second coat: **HEGGEL Corr 260**
@400 microns DFT
- Energy efficiency improving system in seawater service:
 - First coat: **HEGGEL Corr 260**
@250 microns DFT
 - Second coat: **HEGGEL Corr 260**
@250 microns DFT
- Flow enhancement in pipes:
 - First coat: **HEGGEL Corr 260**
@250 microns 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.

HEGGEL Corr 260; Revision No: 1.10 / Last Revision Date: 20.09.2023

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.

HEGGEL GmbH

Huttropstr. 60
45138 Essen
Germany
Tel: +49 201 17003 270
Fax: +49 201 17003 277
E-Mail: info@heggel.de
Web: www.heggel.de