



Material Technologies
Solving Tough Problems

CorrosionGard™ -160S

Corrosion Protection for Industrial Equipment

- Single layer chemically resistant formulation
- Temperature resistance up to 160°C (320°F)
- Resistant to severe dust abrasion
- Application by spray, roll or brush
- Simple inspection and maintenance

Product Description

CorrosionGard™-160S is a dual component, high performance corrosion protection system, for hot structural steel in industrial plants

The surface preparation of structural steel in industrial and marine environments is always exposed to airborne contamination. CorrosionGard™-160S cures and bonds strongly to the steel providing very good chemical resistance at temperatures up to 160°C (320°F). Is an ideal protection in very severe environments.

Applications

The main areas of application are on the internal and external surfaces of:

- Steel structures and vessels in metal smelters cement plants and waste incinerators.
- Steel structures and equipment in power generation plants and oil refineries.
- Storage tanks and pressure vessels that handle corrosive gases and chemicals.

Performance

CorrosionGard™-160S has a great performance in the areas exposed to airborne contamination during the surface preparation and application. The particles that reach the surface and later are covered with a coating, tend to swell by osmosis and produce blisters that lead to cracks and delamination.

CorrosionGard™-160S will resist chemical corrosion in severe applications in industrial and marine environments due to its tough impervious thermoset nature and a strong bond to the substrate.



Spray application of CorrosionGard™-160S

Installation

CorrosionGard™-160S is a two component system. The material is mixed before use and is applied by spray, roll or brush on a sandblasted, dry steel surface. Pot life is 1.5 hours, and after 6 to 12 hours, it cures into a hard coating. At this stage it can be inspected for thickness and integrity and any defect can be recoated.

The formulation as supplied has zero % volatile organic compounds. Recommended range temperature for application is 10°C to 50°C (50°F to 122°F). Coverage at 25 mils dry film thickness is 50 ft²/gallon.

Use denatured alcohol for viscosity adjustment and equipment cleaning.

Additional Information

The shelf life of CorrosionGard™-160S will be at least one year. The material shall be stored in a cool and dry area in the original unopened containers.

The formulation can be skin irritating, avoid excessive exposure to inhalation and body contact. Use in well ventilated areas, for indoor applications use forced ventilation.

See the corresponding MSDS sheets.

Product Properties

Physical properties (Cured at 160°C)	Test Method	Typical Value
Hardness, Shore D	ASTM D-2240	>80
Taber abrasion, mg. (CS-17, 1Kg., 1000 cycles)	ASTM D-4060	<100
Adhesion to steel, psi.	ASTM D-4541	>3000
Heat aging	ASTM D-2485	160°C (320°F)
Acid & Salt spray weathering, mm of corrosion	3L&T M-14	0 mm, after 24 months
Chemical properties (weight gain, 1 week immersion)		
HCl 10%	ASTM D-471	< 0.5 %
H3PO4 54%	ASTM D-471	< 0.5 %
H2SO4 10%	ASTM D-471	< 0.5 %
H2O	ASTM D-471	< 0.5 %

Application

Application methods	Air spray, roll or brush
Vertical dry film thickness, single coat	20 to 30 mils (0.5 to 0.75 mm)
Coverage at 25 mils dry film thickness	50 sq.ft./gallon
Surface preparation	Sand blast, SSPC SP-10, NACE 2 (Near white metal)
Surface profile	> 3.0 mils (>75 microns)
Coating inspection time	After 12 to 24 hours
Recoating interval	Up to 24 hours after initial application
Solvent for viscosity adjustment	Denatured alcohol
Maximum dry film thickness	60 mils (1.5 mm)

Handling Properties

Shelf life	1 year
Shipping and storing temperature	10°C to 40°C (50°F to 104°F)
Mixing to redisperse fillers	>5 minutes at high speed, no sediments
Pot life after mixing	> 1.5 hr. at 25°C (77°F)
Cure time to tack free	6 to 12 hours
Final cure time	8 hours at 60°C (140°F) or 7 days at 23°C (73°F)
Surface temperature for application	10°C to 50°C (50°F to 122°F)
Air relative humidity for application	<90%, 5°C above dew point

Ordering Information for CorrosionGard™-160S

Product is supplied as two components in 6 gallon kits.

Description	Part A	Part B	Total Volume	Net Weight	Minimum Order
CorrosionGard™-160S Kit	Pail 4 GI(15.2L)	2 cansx1GI(7.6L)	6 GI(23L)	101 lb(46Kg)	12 Gallons

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