



Material Technologies  
Solving Tough Problems

# CorrosionGard™-160SH2

## Corrosion Protection for Industrial Equipment

- **Single layer chemically resistant formulation**
- **Temperature resistance up to 160°C (320°F)**
- **Resistant to short peaks up to 250°C (482°F)**
- **Application by spray, roll or brush**
- **Cures at room temperature**

### Product Description

CorrosionGard™-160SH2, is a two component, high performance corrosion protection system for hot structural steel in industrial plants. It cures at room temperature and can operate up to 160°C (320°F)

The surface preparation of structural steel in industrial and marine environments is usually exposed to airborne contamination. CorrosionGard™-160SH2 cures at room temperature and bonds strongly to the steel providing very good chemical resistance at temperatures up to 160°C (320°F). It is an ideal protection in very severe environments.

### Applications

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

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

### Performance

CorrosionGard™-160SH2 performs very well 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. This happens often in marine and industrial environments.

CorrosionGard™-160SH2 will resist chemical corrosion in severe applications in industrial and marine equipment due to its tough impervious thermoset nature and a strong bond to the substrate.



Spray application of CorrosionGard™-160SH2

### Installation

CorrosionGard™-160SH2 is a two component system in a 3:1 ratio. Both, part A and part B are gray high viscosity liquids. 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 at 25°C and after 12 hours, it cures into a dry coating. At this stage it can be inspected for thickness and integrity and any defects can be recoated.

The formulation as supplied has zero % volatile organic compounds. The recommended range temperature for application is 10°C to 50°C (50°F to 122°F). Coverage at 20 to 30 mils dry film thickness is 50 ft<sup>2</sup>/gallon. Maximum recommended dry film thickness is 60 mils.

The recommended solvents are toluene or xylene for viscosity adjustment and equipment cleaning.

### Additional Information

The shelf life of CorrosionGard™-160SH2 will be at least one year. The material shall be stored in a cool and dry area in the original unopened containers.

Material may cause skin, eye and respiratory tract irritation. Material will become flammable after mixing with solvent for viscosity adjustment.

Please see the corresponding MSDS.

## 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	<60
Adhesion to steel, psi.	ASTM D-4541	>1500
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 20 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	Toluene or Xylene (No Ketone, no 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	>2 minutes at high speed, no sediments
Pot life after mixing	> 1.5 hr. at 25°C (77°F)
Cure time to tack free	12 to 24 hours
Final cure	Cures at room temperature
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™-160SH2

Product is supplied as two components in 4 gallon kits.

Description	Part A	Part B	Total Volume	Net Weight	Minimum Order
CorrosionGard™-160SH2 Kit	Pail 3 GI(11.4L)	1 canx1GI(3.8L)	4 GI(15.2L)	67.8 lb(30.8Kg)	8 Gallons

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