



Material Technologies  
Solving Tough Problems

# CorrosionGard™-50S

## Corrosion Protection for Structural Steel

- Single layer surface tolerant formulation
- Excellent outdoor performance
- Resistant to severe dust abrasion
- Application by air spray, roll or brush
- Simple inspection and maintenance

### Product Description

CorrosionGard™-50S is a dual component, surface tolerant corrosion protection system, for the structural steel of industrial plants.

The surface preparation of structural steel in industrial and marine environments is always exposed to airborne contamination. Conventional coatings tend to blister and delaminate in these cases. CorrosionGard™-50S has great performance on steel surfaces exposed to these severely contaminated environments.

### Applications

The main areas of application are on the 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.
- Steel structures and components in piers and marine facilities.

### Performance

CorrosionGard™-50S is an outstanding coating 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™-50S will resist severe chemical corrosion in external applications in industrial and marine environments due to its tough impervious thermoset nature and a strong bond to the substrate.



**Spray application of CorrosionGard™-50S**

### Installation

CorrosionGard™-50S is a two component system. The material is mixed before use and is applied by air spray, roll or brush on a sandblasted, dry steel surface. The pot life is 1 hour 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 temperature for application is 50°F to 120°F (10°C to 50°C). Coverage at 25 mils dry film thickness is 50 ft<sup>2</sup>/gallon.

Use denatured alcohol for viscosity adjustment and equipment cleaning.

### Additional Information

The shelf life of CorrosionGard™-50S 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 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 25°C for 7 days)	Test Method	Typical Value
Hardness, Shore D	ASTM D-2240	>75
Taber abrasion, mg. (CS-17, 1Kg., 1000 cycles)	ASTM D-4060	<200
Adhesion to steel, psi.	ASTM D-4541	>2000
Impact resistance, in-lbf	ASTM D-2794	> 50
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	< 1.5 %
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 (0.50 to 0.75 mm)
Coverage at 25 mils dry film thickness	50 sq.ft.(4.7 sq.mt.)/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	50 mils (1.25 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	>3 minutes at high speed, no sediments
Pot life after mixing	> 1 hr. at 25°C (77°F)
Cure time to tack free	6 to 12 hours
Final cure time	7 days at 25°C (77°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™-50S

Product is supplied as two components in 6 gallon kits.

Description	Part A	Part B	Total Volume	Net Weight	Minimum Order
CorrosionGard™-50 Kit	Pail 4 GI(15.2L)	2 cansx1GI(7.6L)	6 GI(23L)	104 lb(47Kg)	12 Gallons

### 3L&T

897 Independence Ave. #1B  
Mountain View, CA. 94043  
Phone: (650) 625-0177  
Fax: (650) 625-0105  
email: Linas@3L-T.com  
www.3L-T.com

© 3L&T Inc., 02/06  
PB121608, Printed in the USA

Important. All information presented in this document is believed to be reliable and represents the best available data. 3L&T Inc. only warranty is that its products meet the criteria stated here. Typical properties are to be considered as representative of current production, should not be treated as specifications. Users should independently evaluate the suitability of each product for their application. Products may be toxic and require special precautions in handling. User should obtain detailed information on toxicity, shipping, handling and storage procedures, and comply with all applicable safety and environmental standards. 3L&T's only obligations are those in the 3L&T Terms and Conditions of Sale for this product. In no case will 3L&T or its distributors be liable for any incidental, indirect or consequential damages arising from the sale, resale, use or misuse of the product. 3L&T reserves the right to make changes, without notification to buyer, to materials or processes that do not affect the compliance of any relevant specification.