



# RUST GRIP®

## Technical Data Sheet (3/21/17)

### DESCRIPTION

RUST GRIP® is a tough, one-part, moisture-cure polyurethane coating that absorbs atmospheric moisture to cure. RUST GRIP® is loaded with a metallic pigment for strength and is also resistant to chemical solvents and acid splash. Upon curing, RUST GRIP® provides a protective coating film of superior adhesion and flexibility, and is resistant to abrasion and impact. RUST GRIP® can be used as a primer or as a one-coating system. It is patented to encapsulate lead-based paints and other toxic materials, including asbestos. RUST GRIP® can be applied over pressure-washed, completely dry flash rust and firmly bonded commercial paints. In most cases, a white or near-white blasting is not required. A light to medium surface rust is preferred as the profile.

### TYPICAL USES

- As a coating to encapsulate rust, lead-based paints and other hazardous materials.
- As a protective coating on metal, concrete, wood, etc. to add strength and prevent deterioration.
- As a one-coat system on new or existing bridges, oil platforms, roofs, and other commercial/industrial surfaces with minimal surface preparation and non-sparking.

### APPLICATION METHODS

RUST GRIP® can be applied to concrete or masonry substrates. The coating can be applied by spray, brush or roller. For specific instructions on surface preparation, mixing and application, please refer to the SPI's application instructions for RUST GRIP® (millage may vary due to surface profile).

**NOTE:** This product must not be applied on or within 2 inches of chlorinated rubber.

**NOTE:** Never use mineral spirits to prep surfaces or to thin this product.

**NOTE:** For temperatures 95F/35C and above with less than 20% humidity: Rust Grip will dry to touch but will not be completely finished gassing off. If you can move the coating with your fingers, it is not set hard enough to overcoat; if overcoated too soon, bubbles will be caught in the top coat.

**NOTE:** Zinc rich primers  $\geq$  to 8.2 kilo of organic zinc per gallon should be removed by sandblast, hand or power tool prior to application of RUST GRIP®. Also, surface should be allowed to develop surface rust as the profile before applying RUST GRIP®.

**NOTE:** For corrosion protection, RUST GRIP applied over surfaces will encapsulate to block air and moisture. Further, where RUST GRIP is not applied (ie: underside of panels, inside plate assemblies, etc.), the air/moisture is not sealed out to prevent the development of corrosion, which can penetrate through the entire metal thickness to impact structural strength.

### MINIMUM SPREAD RATE (mil thickness)

Apply RUST GRIP® at a minimum thickness of 12 mils wet/6 mils dry over the highest peaks of the surface profile. Allow for absorption into the substrate and filling profile when figuring spread rate.

### TEST AND CERTIFICATIONS

1. Tensile Strength (6,780 psi after 3 weeks)
2. USDA approved
3. E-108-00: Spread of flame on pitched roofs (Class "A" non-combustible)

4. G85: Prohesion over rusted metal
5. Marine approvals for salt water/maritime user: ABS (American Bureau of Shipping) IMO (International Maritime Organization)
6. Mildew Resistance – excellent (ASTM D3273, 3274)
7. Chemical Resistance (24 hours/12 reagents)
8. Flexibility (Mandrel Bend: ASTM D522) – 1/8"
9. Direct Impact Resistance (ASTM D2794)
10. Adhesion (ASTM D3359, D4541)
11. Water Vapor Transmission (ASTM D1653)
12. Surface Burning Characteristics (E84)
13. Weathering (2000 hours) – China
14. Scrub Resistance (ASTM D2486)
15. ASTM B117 – 15000 hours, one coat 6 mils (150microns) Perfect score
16. ASTM E1795 – Encapsulation test group
17. ASTM D5894 at 10K hrs with perfect 10 score @ 6 mils
18. Corps. Of Engineers Guide Specification UFGS 099702; painting hydraulic structures
19. Naval Warfare Center, Caderock Div. #NSWCCD-61-TR-2012/65 Materials Dept.
20. US Army Construction Engineering Research Laboratories (USACERL) Reports: ERDC/CERL TR-03-05/3/A080263

**MEETS USMC SPEC: TM4795-OR/1**

### PHYSICAL DATA

- ◆ RG-1 Solids: By weight 62.2% / By volume 51.4%
- ◆ RG-ME Solids: By weight 56% / By volume 44%
- ◆ 30-60 MINUTES TO TACK FREE AT 70°F (21°C)
- ◆ Overcoat window is three hours or less at 70°F (21°C)
- ◆ Hygroscopic: Cures by absorbing moisture in the air
- ◆ Net Weight: 9.1 lbs. per gallon
- ◆ Moisture-cure Polyurethane
- ◆ Shelf Life: Up to 3 years (unopened) under appropriate storage condition (see MSDS)
- ◆ One component coating; No curing agent needed
- ◆ VOC Level: 380 grams/liter; 3.17 lb./gal.
- ◆ Silver-gray in color; not available in colors
- ◆ Resistant to most solvents, chemicals and some acids
- ◆ Maximum Surface Temperature when applying; 150°F (65°C)
- ◆ Minimum Surface Temperature when applying; 50°F (10°C)
- ◆ Maximum Surface Temperature after curing; 325°F (163°C)
- ◆ Failure will occur at a constant temperature equal to or greater than 302°F (150°C); consult SPI for intermittent temperatures greater than 302°F (150°C)
- ◆ Non-sparking

### SAFETY PRECAUTIONS

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: proper ventilation, use of proper lamps, wearing of protective clothing and masks, tenting, and proper separation of application areas. This coating is flammable. Keep away from fire, or other sources of ignition. For more specific safety procedures, please refer to the RUST GRIP Safety Data Sheet. **KEEP OUT OF REACH OF CHILDREN.**

**LIMITATION OF LIABILITY:** The information contained in this data sheet is based upon tests that we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the products made by SPI, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge is reliable. The products and information are designed for users having the requisite knowledge and industrial skills, and the end-user has the responsibility to determine the suitability of the product for its intended use.

SPI has no control over either the quality of condition of the substrate, or the many factors affecting the use and application of the product. Therefore, SPI does not accept any liability arising from loss, injury, or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The information contained in this data sheet is subject to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and the user has the responsibility to ensure that this sheet is current prior to using the product.