SPI COATINGS

PROVEN PERFORMANCE • REAL WORLD SOLUTIONS

INSULATION AND CORROSION SPECIALISTS

RUST GRIP

Technical Data Sheet (06/30/20)

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. Conforms to MIL-PRF-3135.

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 >/= 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)

No flat surface is completely smooth and will have a profile of 1-2 mils (25-50 microns). Because of this, we will establish a minimum wet application of 12 mils and dry of 6 mils (150 microns). The number of coats necessary to achieve a minimum of 4 mils (100 microns) dry thickness over the top of the tallest peak of rust or profile will be in accordance with the job specification, blast profile or rust profile. Allow for absorption into the substrate and filling profile when figuring spread rate. For example, if the profile is 3 mils (75 microns) and 4 mils of coating is needed then 7 mils of coating is needed (114 sqft or 11 sqm/gal).

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 Spec. 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
21. Meets requirements of SSPC Paint 38 (min) for Primer and SSPC Paint 41 (min) for Primer/Top-Coat.

PHYSICAL DATA

- RG-1 Solids: By weight 62.2% / By volume 51.4%
- 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 that exceed
- Non-sparking
- Viscosity: 150 centipoise
- Avg Perms: 0.24