



SPI COATINGS

PROVEN PERFORMANCE • REAL WORLD SOLUTIONS

RUST GRIP®

BIO-HAZARD ENCAPSULATION SPECIFICATIONS (4/22/20)

INSULATION
AND
CORROSION
SPECIALISTS

SURFACE PREPARATION

SSPC-SP1, SSPC-SP2, SSPC-SP3, SSPC-SP6 and SSPC-SP12/WJ-3 or SSPC-SP12/WJ-4 Surface Preparation (using low pressure less than 3,500 psi/25MPa) depending upon the condition of the surface.

Surface shall be free of all existing mill scale, pack rust, dirt, contaminants, embedded oils, and foreign matter and shall have all loose rust and loose coatings uniformly removed. Surface of any firmly bonded coating shall be sanded and roughed to remove gloss or shiny finish and to improve the surface profile.

Surface shall be cleaned using TSP (tri-sodium-phosphate) or a citrus cleaner to release dirt and degreaser residue.

Surface must be completely dry and clean. If surface moisture exists, wipe down with Acetone before application. **SURFACE MUST BE COMPLETELY DRY.** Use Chlor-Rid, or equivalent to remove any salt contamination (chlorides, sulfates and nitrates).

NOTE:

- In areas where the loose flakes can be removed, use netting to catch the flakes when power washed.
- In areas where no removal is allowed, RUST GRIP can encapsulate all loose material if rolled or brushed to force the RUST GRIP deep into the surface in order to bridge the flakes with the bonded surface. This may require double the quantity calculated for the job.

Surface must be completely dry before applying.

- RUST GRIP® must be applied during proper temperatures (40°F-100°F) and the prescribed overcoat window of the coating over which it will be applied.
- If applied over an existing coating having a glossed or shiny finish, it must be sanded and roughed to remove gloss before application, to improve the profile.

NOTE: Never use a needle gun. This compacts rust into the pores and blocks RUST GRIP from anchoring.

MIXING

The coating will initially be a yellowish green color. Mix by hand or with a power drill using low-medium speed with NO vortex (a vortex will draw moisture into the coating and will cause foaming in the pail). Mix continuously (with no vortex) until the entire surface of the coating turns a silver-gray color. Mix for two more minutes using a 0.45mm size tip with a 4-inch (100mm) fan width making sure all paste is lifted from the bottom.

NOTE: Once container is opened, the product must either be used completely, or sealed with plastic before re-attaching lid after use, or repackaged and sealed well in an unlined metal can. Product may thicken if left open in can. Pour off the amount you intend to use after proper stirring. If left open, the product will harden in the container. For start & stop (lunch), drop gun into solvent pail and cover. **ONCE OPENED, PAIL WORKABILITY CHANGES ACCORDING TO AMBIENT CONDITIONS** – 4 hours at 70°F degrees (21°C) at 60% or higher Relative Humidity. Cooler temperatures or lower humidity, more workability time. Warmer temperature or high humidity; less workability time.

APPLICATION

Coating over existing lead-based paint will have variances in thicknesses applied according to the porosity of the lead-based paint (LBP) surface. Some LBP will absorb the initial coats showing what looks like pinholes in the surface of the RUST GRIP as it is being absorbed. You must apply the RUST GRIP until this is no longer happening to have the LBP sealed and encapsulated. This will show up within 30 minutes of each coat if absorption is happening.

1st Coat (Brush): RUST GRIP @ 10 mils (250 microns) WFT / 5 mils (125 microns) DFT – 160 sq.ft. (15 sq.m.) per gallon. Surface must be dry. Firmly press brush against surface to ensure penetration. Porous surface are extremely absorbent and will require multiple coats of RUST GRIP until the absorption process stops and the coating film is sagging.

2nd Coat (Brush/Roll/Spray): RUST GRIP @ 8 mils (200 microns WFT / 4 mils (100 microns) DFT – 200 sq.ft. (18 sq.m.) per gallon.

3rd Coat/Additional Coats (Brush/Roll/Spray):

Additional coats of RUST GRIP, if necessary, to achieve 4-5 mils (100-125 microns) DFT over the peaks of the surface profile. According to porosity of the surface a third coat may be necessary.

4th Coat, if necessary (Brush/Roll/Spray): According to porosity of the surface, a fourth coat may be necessary. RUST GRIP @ 4 mils (100 microns) WFT / 2 mils (50 microns) DFT = 400 sq.ft. (36 sq.m.) per gallon.

Could be a total of 75-80 sq.ft. per gallon or 7.0-7.5 sq.m. per gallon spread rate – all according to porosity.

5th Coat when color top coat is required (Brush/Roll/Spray): ENAMO GRIP (or any quality top coat) @ 4 mils (100 microns) WFT / 2 mils (50 microns) DFT – 200 sq.ft. (18 sq.m.) per gallon (for custom color).

Total System DFT: Total of 11 DFT but must have 4-5 mils (100-125 microns) DFT (over peaks of surface profile) – RUST GRIP alone according to porosity, 6-7 mils (150-175 microns) DFT (over peaks of surface profile) – RUST GRIP and ENAMO GRIP.

APPLICATION NOTES:

- Surface profile must be factored when estimating the spread rate and amount of coating required. Allow for penetration into the profile and adjust accordingly (i.e. if the profile takes 2 mils (50 microns) to fill before achieving the 5 mils (125 microns) then you must figure 7 mils (175 microns) dry as the appropriate spread rate.
- RUST GRIP is a moisture cure polyurethane. When ambient temperature is above 90F and above 60% humidity, RUST GRIP sets up tacky in 15 minutes to 1 hour.
- Temperatures must always be a minimum of 5 degrees above the dew point during application. If there is a minimum of 5mph of wind, this can keep the surface dry.
- At high RH values of 60% or more, Rust Grip® cures very quickly and the window for applying another layer of coating is very short. At 85% RH, it could be determined that one has only an hour or less over-coat window depending on the ambient temperature. The higher the temperature, the faster solvents evaporate out of the coating. It is always best to overcoat **immediately** when the first coat of Rust Grip® becomes dry to the touch. Since the curing process is so dependent on ambient temperature and RH, the physical touch-test is always the best approach when working in high humidity environments. For optimum inter-coat adhesion, overcoating of RUST GRIP should be performed as soon as the first coat is tacky when you can see the outline of your own fingerprint without wet paint sticking to it after pressing thumb against the coating.
- Brushing is the preferred application method for the first coat.** Keep the brush very wet at all times, working at 'half-speed' using the crosshatch method. Go a short distance to allow the first coat to penetrate, then return to the beginning and apply a second coat identical to the first. Additional coats using brush or roller may be required in the same manner to ensure penetration into the pores to fully encapsulate the existing surface with sufficient thickness to cover the peaks, and to prevent the appearance of pinholes.
- After the initial coats are applied, spray RUST GRIP using a standard airless spray (1.5 gallons/minute @ 3300psi) with 0.013-0.017 tip. Spray may be used for the application of RUST GRIP on third coats provided that back brushing or back rolling is used to force the coating into the pores of the surface initially.
- Typical areas where stripe coats must be applied by brush include behind bars, plate edges, cut-outs (i.e. scallops, manholes, etc.), welds, chimes and seam areas, areas of difficult access, small fittings of difficult configuration and areas of pitting and existing rust.
- Use Acetone to aid in drying surface before applying RUST GRIP®, when needed. DO NOT use mineral spirits or any other solvent for this purpose.

CURE TIME

30-60 minutes to tack-free when 70°F, (21°C) at 40% relative humidity; fully cures in thirty days when 70°F (21°C) at 40% relative humidity.

CLEANING EQUIPMENT

- If breaks are taken, spray systems should be flushed with solvent.
- After completion, spray system should be flushed and cleaned with MEK or Xylene; brushes and rollers should be discarded.