RUST BULLET STANDARD FORMULA
Industrial Rust Inhibitive Coating

Specifications for Surface Preparation and Paint Application on New and Uncoated Steel

The Product Data Sheet (PDS) and Material Safety Data Sheet (MSDS) are integral part of these instructions. Material should not be handled or used without reading and understanding this information.

The following instructions are intended for professional application by trained workers, using equipment suitable for the task at hand. Neglecting to follow instructions or omitting steps in whole or in part may be detrimental to the coating's performance, durability and appearance.

SURFACE PREPARATION

Basic method (not for immersion service)

- Clean surfaces according to SSPC SP1, Solvent wipe, removing all visible surface contaminants;
- To remove non-visible salts i.e.: chloride, sulphate or ferrous ion contamination, surface should be washed and rinsed with clean water thoroughly, chloride residue should be kept bellow 10 micro-gram / sq/cm. Slightly higher concentrations may be allowed for some applications;
- Surface salt presence may be confirmed by using the method described in ISO 8502-6:1995, Brestle Patch Method and ISO 8502-9:1998, Conductometric Determination of Water-soluble Salts;
- Prepare surfaces following cleaning as described in SSPC SP 3, ISO St. 2, Power Tool Cleaning, removing weld splatter, grinding down sharp angles, protrusions and areas darkened by welding heat;
- Use a medium grit power sanding disc or grinder to roughen up all mill-scale covered areas;
- Remove all dust, filings, dirt and visible contaminants following power tool cleaning.

Note: Do not use flammable or noxious solvents for surface cleaning in confined space. Use water soluble de-greaser products or tri-sodium-phosphate (TSP) solution in concentration not more than 15 grams per litre of water, or use Rust Bullet Metal Blast "Rust Dissolver and Surface Cleaner", and rinse thoroughly by pressure washing after cleaning. Do not allow these products to dry on the surface before rinsing.

Dry abrasive blasting method (for fuel immersion service)

This method requires an initial investment in labour and procedure, but the service life of the coating can be significantly extended by preparing the surface to this level even if not intended for immersion service.

- Dry-abrasive blast all surfaces to SSPC SP6/NACE No.3 standard, achieving a minimum of 1.5-2.5 mils, angular profile;
- Profile depth may be confirmed by ASTM D4417 method A, Comparator Disc or ASTM D4417 method B, Depth Micrometer or the Replica Tape Method, NACE, RPO 287;
- Cleanliness of blasting air should be checked for oil and water contamination before operations starts each day and once a day after, using ASTM D4285, Blotter Test standard;
- All blasted surfaces should be coated immediately after blasting. If it is not possible and in case the blasted surface would develop flash rust, an attempt shall be made to remove it by wire brush and the brushed surface must be dusted off immediately before coating application.

Note: For blasting media selection SSPC Abrasive Specification No.1 should be consulted. The use of Type I and Type II (Class A, B, C, Grade 2 or 3) abrasive is recommended to achieve the best results.

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Dry abrasive blasting method **(for salt water or potable water immersion service)**

This method requires an initial investment in labour and procedure, but the service life of the coating can be significantly extended by preparing the surface to this level even if not intended for immersion service.

- Dry-abrasive blast all surfaces to SSPC SP10 standard, achieving a minimum of 1.5-2.5 mils, angular profile;
- Profile depth may be confirmed by ASTM D4417 method A, Comparator Disc or ASTM D4417 method B, Depth Micrometer or the Replica Tape Method, NACE, RPO 287;
- Cleanliness of blasting air should be checked for oil and water contamination before operations starts each day and once a day after, using ASTM D4285, Blotter Test standard;
- All blasted surfaces should be coated immediately after blasting. If it is not possible and in case the blasted surface would develop flash rust, an attempt shall be made to remove it by wire brush and the brushed surface must be dusted off immediately before coating application.

Note: For blasting media selection SSPC Abrasive Specification No.1 should be consulted. The use of Type I and Type II (Class A, B, C, Grade 2 or 3) abrasive is recommended to achieve the best results.

Coating Application:

- Observe application instructions in Product Data Sheet(s) (PDS) in regards to mixing, thinning and environmental conditions;
- Do not apply coatings in very hot weather, if rain is imminent or may be expected within the drying time of the coating, or when conditions make moisture condensation on the surface probable;
- Avoiding hot weather application by scheduling painting operations early in the day when temperatures are lower;
- Open containers shortly before needed for application. Unused portions shall be closed tightly when not needed;
- Apply a stripe-coat to all welds, inside and outside corners, sharp edges, protrusions and intricate details and two stripe coats must be applied to areas where it is difficult to reach by the spray-fan;
- Coatings and linings must be applied in a minimum of two coats, achieving the prescribed Dry Film Thickness (DFT) for each coat, final DFT must be within specified limits;
- Observe re-coating time windows for optimum adhesion;
- Cured coating thickness can be confirmed by DFT gauges, Type 1 and Type 2, as described in ASTM D 7091-05. In confined spaces Type 1 should be used;
- For best results in hot weather, the first coat of Rust Bullet may be applied by brush and roller (better wetting of the substrate). If spraying is preferred, than the “back-spray” method may be used. The “back spraying“method is applying a thinner “tack coat” and over-spraying with a full coat of material before the tack coat dries. This method will help eliminate possible pinholes;
- Subsequent coat(s) should be applied within the overcoat window, if material is applied past this time, the surface should be lightly sanded to improve adhesion

Note: Surface preparation and paint application should be done by competent, trained personnel. Quality control should be the responsibility of a person who has a good understanding of the referenced standards and has the knowledge and means of conducting necessary tests and verifying test results.

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If Rust Bullet is applied in confined space all applicable and relevant safety rules must be followed. Most solvent fumes are heavier than air, and confined spaces where solvents are used must be properly ventilated.

Important Note

The information provided in this document is not intended to be exhaustive. Any use of the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from Rust Bullet, LLC as to the suitability of the product for the intended purpose does so at their own risk. All advice give or statements made regarding the product (whether in this data sheet or otherwise) is correct to the best of our knowledge however we have no control over the quality or condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to law) any loss or damage arising out of the use of the product. All products supplied and technical advice given, are subject to our limited warranty. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their Rust Bullet representative that this data sheet is current prior to using the product.

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