

RUST BULLET® APPLICATION GUIDELINES

You are about to use the Best Rust/Corrosion Control Product on the market.

To ensure you achieve the best possible results from Rust Bullet's Patented New Technology, it is extremely important that these Application Guidelines are read thoroughly before use.

Rust Bullet is a super-tough, high-performance, industrial grade, rust inhibitive coating with phenomenal adhesion, that can be applied directly over rusted and clean metal, providing permanent rust protection. Rust Bullet protects iron, steel, aluminum and most other metals. Rust Bullet also provides excellent protection for concrete, wood, fiberglass, and many other surfaces with little or NO preparation prior to application. Rust Bullet can be applied over painted surfaces but you will lose some of the benefits Rust Bullet provides. Rust Bullet works best when it is in direct contact with the base metal. If you do decide to use Rust Bullet over existing paint that can not easily be removed, you must first rough up the painted surface with 100-150 grit sandpaper or sanding sponge prior to applying Rust Bullet. Painted surfaces should be tested on a small area for lifting or cracking. Rust Bullet is extremely resistant to acid splash and chemical solvents.

Rust Bullet may be applied by brush, roller, or spray equipment. Rust Bullet should be applied evenly without buildup. Apply using the crosshatch method (up and down, side to side). Application equipment must be clean and free of moisture and all other paint, especially latex, or paints containing alcohol. The surface to be coated must be completely dry, any large flakes of rust should be scraped or wire brushed off. Remove loose mill scale by lightly scraping, sanding, or wire brushing. All surfaces must be free of loose rust, moisture, dirt, mildew, oily substances, wax, loose paint, and loose particles. **The surface to be coated must be completely dry.** Existing tight paint should be roughed up with 100-150 grit sand paper or sanding sponge to insure proper adhesion of Rust Bullet. No additional surface preparation is necessary; **Rust Bullet's phenomenal adhesion qualities will provide outstanding results with little or NO preparation prior to application.**

IMPORTANT: Wear protective clothing and gloves during application and clean up; it is extremely tough to remove Rust Bullet from your skin after about 20 minutes. Eye protection during application and clean up is highly recommended.

Rust Bullet covers approximately 200 square feet per gallon with a two coat application, depending on type and condition of the surface.

It is critical that at least two coats of Rust Bullet be applied, dry film thickness (dry coat thickness) of 3 mils each (0.003 inches or 0.076 millimeters). For comparison purposes, 4 mils is approximately the thickness of one sheet of standard paper. It is particularly important that the first coat be generous enough to soak through the rust to the steel or iron underneath. A second coat of Rust Bullet must be applied to completely seal the first coat; this cannot be done with any other paint or coating material. Rust Bullet recommends that the coverage in mils be a finished dry film thickness of 3 mils applied two times equaling a minimum of 6 mils finished dry film thickness. Optimum drying time between coats is approximately two to four hours. Applying Rust Bullet in overly thick coats could cause small bubbles to form in the coating as it starts to cure. Carbon Dioxide gas is released during the curing process and may become trapped in an overly thick coat. Several thin coats applied in a crosshatch method (up and down, side to side) will produce the best results. When applying additional coats of Rust Bullet the previous coat of Rust Bullet should not be wet or tacky; if you are unable to transfer Rust Bullet to a gloved finger then it is safe to apply an additional coat. **When applying Rust Bullet over existing paint or primers that can not be scraped off, it is very important to rough up the surface with 100 to 150 grit sand paper, sanding sponge or scuff pad prior to the application of Rust Bullet. This also applies to a previous coat of Rust Bullet if 72 hours have lapsed between additional coats or the application of a topcoat.** For heavy industrial or marine use, a repeated coating of Rust Bullet to achieve a total dry film thickness (DFT) of 12 mils is required. Any shortage of material may limit Rust Bullet's effectiveness. For maximum rust prevention, ensure corners, edges, and heavily pitted areas are adequately coated. The final coat of Rust Bullet may be topcoated after 24 hours with almost any paint if a different color is needed or desired. Cure time varies based on relative humidity and temperature of the surface: 80% in 4 hours, fully cured in 72 hours. When applying Rust Bullet, it is recommended that the air or surface temperature not be below 35°F (2°C) or above 110°F (43°C). Ideal application temperature is between 50°F (10°C) and 80°F (27°C) with humidity below 90% to ensure proper drying. Do not apply to surfaces when the existing temperature of the surface exceeds 150°F (66°C) or is below 32°F (0°C). After curing, Rust Bullet has a service temperature range of 314°F (157°C) continuous, and can tolerate temperature spikes of up to 700°F (371°C) for up to 24 hour periods. **Immediately after use, spray equipment must be cleaned with xylene, acetone, or toluene.**

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH-approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

PRODUCT STORAGE AND HANDLING

1. Care should be taken to ensure that new unopened containers or left-over partial containers are kept sealed. Heavy Duty Plastic Wrap can be placed over the top of the remaining Rust Bullet with the excess plastic extending beyond the rim of the container. This will displace as much air as possible from the remaining Rust Bullet and will help prevent the lid from permanently sealing closed.
2. **Rust Bullet is moisture sensitive. It is recommended to limit the time the container is opened. Transfer only the amount needed for the application of each coat. Immediately wipe clean any Rust Bullet from the rim of the container and reseal. This should be done every time you use Rust Bullet and in between coats. Never pour Rust Bullet that has been exposed to air and moisture back into the container with unused Rust Bullet.**
3. If a skin has formed in a new, unopened container or a sealed container, remove by cutting edge of skin at the skin/container surface. Discard the skin properly. Stir until uniform. Filter if necessary and apply.
4. Rust Bullet is packaged in unlined paint cans. If for any reason Rust Bullet is transferred to another container; clean, unlined, paint cans (or similar unlined metal containers) must be used.
5. Unopened cans of Rust Bullet have a shelf life of at least two years (previously opened cans: three to six months).

STIRRING

1. Do not open and stir Rust Bullet when the coating's temperature is below 32°F (0°C).
2. Since Rust Bullet is a single-component material, it is not necessary to mix "part A with part B"; however, Rust Bullet should be **stirred thoroughly** for at least 2 minutes or until completely uniform. **(Avoid whipping air into product.) Shaking the container of Rust Bullet prior to application may cause the formation of bubbles in the finish of the coating.**

3. Aged Rust Bullet (six months or older) may develop settling. Follow the same process as in "STIRRING, #2" but increase the stir time and be sure to break up clumps on bottom, if any.
4. **Do not reduce or thin Rust Bullet. Do not add other paints in an attempt to change the color of Rust Bullet.** Because of the exacting chemical balance of Rust Bullet, thinning or altering will compromise the quality of the cured product. **Rust Bullet® Automotive (Silver Label) is formulated slightly thinner and can easily be sprayed through an HVLP, Automotive Finishing Gun.**

EQUIPMENT SET-UP PROCEDURES

AIRLESS SPRAY: *Rust Bullet is supplied ready to stir and apply with airless spray systems.*

1. Inspect all spray equipment and ensure it is clean and in good working order.
2. Flush xylene or toluene through your spray equipment to remove any existing moisture or alcohol from previous coatings or solvents.
Note: Do not re-circulate solvent through pump, as the solvent will be contaminated with moisture and debris. Draw solvent from one container and flush into another. Never allow old solvent in the coating lines to enter Rust Bullet.
3. Standard **Rust Bullet® (Gold Label)** is formulated to work well with Airless Spray Systems using a 517 or 519 tip, and an approximate 2400 psi.
4. Follow all stirring instructions as listed above under "STIRRING."
Note: Ensure that minimum cure times are followed for recoat. Published cure times (under normal weather conditions) are recommended per coat as specified on the data sheet. When excessive wet film is applied, additional cure time will be necessary.

CONVENTIONAL SPRAY:

Procedures are the same as for airless spray. Use only **xylene or toluene** for flushing equipment prior to application and for clean up. If necessary, apply a small "float" of **xylene or toluene** over the Rust Bullet in the paint pot prior to sealing. **(Use only as much as is needed to just cover the surface). Do not agitate in pressure pot. The float of solvent must not be mixed with Rust Bullet; its only purpose is to keep air from coming into contact with Rust Bullet in the paint pot for the duration of the application.**

Use standard production type spray equipment. Air supply must have an effective moisture trap. Use air pressure at the gun of 45-70 pounds. Use 15-20 psi pot pressure. Do not agitate in pressure pot. We recommend straining through a nylon bag strainer.

HVLP SPRAY:

HVLP may be used as well, 20-50 pounds with a 1.0 to 1.7 tip. **Rust Bullet® Automotive (Silver Label)** is formulated slightly thinner to flow smoothly through HVLP automotive finishing guns and produces a finish comparable to Powder Coating. It is best to use a gravity feed HVLP. Three coats of Rust Bullet® Automotive should be sprayed two to three hours apart using the HVLP system to achieve the recommended dry film thickness.

Note: When spray equipment is idle for more than 15 minutes, it is necessary to resume painting or flush with solvent. It may be necessary to lay tip of sprayer in solvent to keep from curing.

ROLLER OR BRUSH APPLICATION:

Use 1/4 to 3/8 inch nap synthetic fiber roller cover. Pay special attention when brush-applying Rust Bullet to prevent brush stroke lines in the film. When spraying, rolling, or brushing it is important to keep a wet edge. Rust Bullet should be applied evenly without buildup using the crosshatch method (an up and down and side to side motion). Applying Rust Bullet in overly thick uneven coats could produce small bubbles in the finished coating due to the carbon dioxide gas that is released as Rust Bullet cures.

CLEAN-UP

1. Use xylene, acetone, or toluene. Do not make assumptions about other cleanup solvents without consulting Rust Bullet Customer Support. Even a very small contamination of Rust Bullet with alcohol or other hydroxyl-containing solvents can destroy the moisture-cure reaction partly or entirely without any indication or jelling.
2. Always flush equipment clean. Do not leave residue as it will harden and become insoluble in solvent. Clean equipment as you would with any typical two component catalyzed coating. Always clean brush or roller thoroughly or throw them away after use. Dunking dirty equipment in solvent will not prevent the coating from curing overnight. Avoid contact with skin or clothing. Use gloves, safety glasses, and other protective equipment. Any coating must be removed within 20 minutes or it will harden and become next to impossible to remove. After drying, Rust Bullet can only be removed with rigorous abrasive action. Rust Bullet that has dried on the skin will wear off in about a week.

GOOD PRACTICES

1. Always prevent rain, mist, or sweat from falling directly into an open can of Rust Bullet. A plastic, cardboard, or metal cover is always a good practice.
2. When saving partial cans, always lay a plastic sheet on the remaining material, then reseal. When done this way, any partial Rust Bullet can be saved. If a skin forms on the surface of the material in the can, remove from the container and dispose of properly. Stir until uniform. Strain if necessary.

FINAL POINTS TO REMEMBER WHEN APPLYING RUST BULLET

1. **Never allow sweat, rain, or mist to fall into Rust Bullet.**
2. Do not open the can of Rust Bullet until you are ready to use it.
3. Never over stir, entrap, or whip air into Rust Bullet.
4. For clean-up use only clean xylene, acetone, or toluene. Never allow lacquer thinner, vinyl thinner, epoxy solvent, or any alcohol or unapproved solvent to enter Rust Bullet.
5. Never neglect to purge all paints, moisture, or debris from equipment before spraying Rust Bullet. **Spray equipment must be cleaned with xylene, acetone, or toluene immediately after use.**
6. **Never apply Rust Bullet while raining or under threat of rain.**
7. Applying a topcoat over Rust Bullet is not necessary. If one is desired, please wait 24 hours after the application of the final coat of Rust Bullet.

SAFETY CONSIDERATIONS

A certain degree of risk is involved in the use – or more properly, the misuse, of most industrial materials. Rust Bullet is no exception to this rule. The applicator and his assistants need to ensure that there is adequate ventilation at the worksite. If this is not possible, a NIOSH Approved Respirator with a P100 Filter or Equivalent must be used. Filters must be changed if and when they become saturated. Protective gloves and safety glasses must also be worn. Due to the superior adhesive properties of Rust Bullet, we strongly recommend that protective clothing be worn including long sleeves and a spray sock. It is also critical to avoid any conditions that may cause a fire. Avoid open flames, pilot lights, sparks, heating elements, cigarettes, or any and all possible sources of ignition. For more complete coverage of safety issues, see the MSDS at www.RustBullet.com.