RUST BULLET® GENERAL APPLICATION INFORMATION

IMPORTANT: Please read Rust Bullet's "Application Guidelines" included with every order. To ensure you achieve the best possible results, it is extremely important that the Application Guidelines are read thoroughly before using Rust Bullet Products.

The Application Guidelines are also available at www.RustBullet.com or by calling Rust Bullet's Customer Service Department at 800-245-1600.

Rust Bullet® *Automotive*

Rust Bullet® *Standard Formula*

Rust Bullet® BLACKSHELL®

Rust Bullet® *Rapid Fire*

Rust Bullet® *Metal Blast*

Rust Bullet® and Rust Bullet® *Automotive*

Rust Bullet and Rust Bullet *Automotive* are Super-Tough, High-Performance, Industrial Grade, Rust Inhibitive, Protective Coatings that can be Applied Directly over Rusted Metal and Clean Surfaces, Providing Permanent Protection with Phenomenal Adhesion.

Rust Bullet has been awarded an Unprecedented Two U.S. Patents by the United States Patent and Trademark Office.

Rust Bullet® BLACKSHELL®

Rust Bullet BLACKSHELL is formulated specifically as a topcoat for both Rust Bullet formulas if a smooth gloss black finish is desired. BLACKSHELL is scratch and chip resistant, UV resistant, as well as, resistant to Acid Splash and Chemical Solvents. BLACKSHELL is an excellent protective stand alone coating, requiring no basecoat or topcoat and easily out-performs other protective coatings. BLACKSHELL can be applied over painted or unpainted surfaces; however, the unbeatable combination of BLACKSHELL over Rust Bullet or Rust Bullet *Automotive* will provide the absolute best protection against rust and corrosion available today.

Rust Bullet® Rapid Fire

Rust Bullet Rapid Fire Accelerator is designed for spray applications of Rust Bullet Standard, Rust Bullet *Automotive*, and Rust Bullet BLACKSHELL Rust Inhibitive Coatings. Rapid Fire decreases the drying time needed between coats, ultimately reducing project completion times up to 80% while maintaining optimal coating performance.

Rust Bullet® Metal Blast

Rust Bullet Metal Blast Rust Dissolver, Surface Cleaner and Conditioner removes rust, grease and contaminates. Metal Blast eliminates the high cost of extensive surface preparations by properly etching surfaces with minimal or poor adhesive qualities providing an ideal anchor pattern for a superior coating bond. Metal Blast enhances the adhesive properties of all Rust Bullet Coatings on any metal surface including aluminum, stainless steel and shiny polished metal resulting in optimum coating performance. Metal Blast dissolves rust from metal tools and equipment, as well as other rusted surfaces, adding years of performance to any paint project.

SURFACE PREPARATION FOR RUST BULLET COATINGS

The surface to be coated must be completely dry. All surfaces must be free of loose rust, paint, moisture, dirt, mildew, oily substances, wax, and loose particles. Remove any loose rust, loose paint, or loose mill scale by lightly scraping, sanding, or wire brushing. If necessary, we recommend cleaning the surface with **Rust Bullet Metal Blast**. No additional surface preparation is necessary as Rust Bullet bonds with metal to kill the rust and form a super-tough armor like coating. Remember that the surface to be coated must be completely dry. Rust Bullet will penetrate some paints by just scuffing up the painted surface prior to application; however, Rust Bullet works best when in direct contact with the rusted surface or bare metal. When media blasting a surface prior to a Rust Bullet application, Soda Blasting, Dry Ice Blasting, and Hydro-Blasting are three methods of media blasting that are effective, clean, and environmentally safe. All media are sound options and clean up will be relatively minor.

APPLICATION METHODS FOR RUST BULLET COATINGS

- **Brush or Roller Application:**
  All Rust Bullet Coatings can be applied with a brush or roller if spray equipment is not available. We recommend using a close nap roller for most projects. Always keep a wet edge on the tip of your paint brush. Apply evenly without buildup using the crosshatch method (up and down and side to side motion); nice even coats using the crosshatch application method will produce the best results.

- **HVLP Spray Gun:**
  The Rust Bullet *Automotive* Formula is thinner than the Rust Bullet Standard Formula allowing it to flow easily through HVLP spray equipment. Rust Bullet *Automotive* is designed to provide a shiny smooth paintable finish. When applying with an HVLP spray system, use a 1.7 to 2.0 tip at 40-60 psi. A minimum dry film thickness of 6 mils must be applied to the project surface for the 10 year warranty to be valid; some applications require additional coats to achieve the appropriate dft expressed in the Rust Bullet Warranty. Prior to spraying, run Xylene through the spray equipment to remove any moisture that is trapped in the sprayer. After each coat of Rust Bullet is applied, flush the gun or submerge the tip in Xylene.

Application equipment must be cleaned immediately after use to avoid damage to the sprayer. If there is a filter in the gun it must also be cleaned.
Approximately 24-48 hours after the application of the final coat of Rust Bullet, a topcoat may be applied. Rust Bullet is metallic gray in color; it is only necessary to apply a top coat if you desire a different color other than metallic gray. Rust Bullet **BLACKSHELL** is formulated specifically to topcoat Rust Bullet if a smooth gloss black finish is desired. **BLACKSHELL** is scratch and chip resistant, UV resistant, as well as, resistant to Acid Splash and Chemical Solvents. **BLACKSHELL** is an excellent protective stand alone coating, requiring no basecoat or topcoat; however, the combination of **BLACKSHELL** and Rust Bullet or Rust Bullet *Automotive* will provide unbeatable surface protection.

Airless & Commercial Spray Equipment:

The best results are achieved by applying the Rust Bullet Standard Formula using an airless spray system. An airless spray application will generally produce a minimum dry film thickness of 3 to 4 mils per coat. When using airless or commercial spray equipment to apply Rust Bullet Products, a 517 to 523 tip at an approximate 3000 psi is recommended.
Xylene is recommended for the preparation and cleanup of all spray equipment. When the spray gun is not in use, such as between coats, it should be completely submerged in a container of Xylene. Application equipment must be thoroughly cleaned immediately after use to avoid damage; any remaining Rust Bullet will cure and likely destroy the equipment.

Airless Spray Tips:

- Rust Bullet Standard is supplied ready to stir and apply with an airless sprayer.
- Straining through a nylon bag strainer is recommended.
- Follow Stirring Instructions thoroughly before application.
- Recommended tip size is a 517 to 523.
- Inspect all spray equipment and ensure it is clean and in good working order prior to application.
- Flush Xylene or Toluene through pump, line, and gun to remove any existing moisture or alcohol from previous coatings or solvents. Do not re-circulate the solvent through the 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.
- Ensure that minimum cure times are followed before the application of a subsequent coat. When applying additional coats of Rust Bullet or **BLACKSHELL** the previous coat should not be wet or tacky; if you are unable to transfer the coating to a gloved finger then it is safe to apply an additional coat. Approximate drying time between coats is two (2) to four (4) hours for Rust Bullet, and six (6) to ten (10) hours for **BLACKSHELL**, depending on humidity levels. When excessive wet film is applied, additional cure time will be necessary.

EQUIPMENT CLEAN-UP

IMPORTANT: Application equipment must be cleaned

immediately after use to avoid damage.

- *Use Xylene, Toluene, or MEK for cleanup; do not substitute any other solvent.*
- *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.*
- *Always flush equipment clean.*
- *Do not leave Rust Bullet residue as it will harden and become insoluble in solvent.*
- *Clean equipment as you would with any typical two component catalyzed coating.*
- *Always clean brushes and rollers thoroughly.*
- *Dunking dirty equipment in solvent will not prevent the coating from curing overnight.*

COMMON APPLICATION QUESTIONS

Complete FAQ's regarding specific applications: Commercial & Industrial, Automotive, Marine, and Home & Farm are available at www.RustBullet.com or by calling Rust Bullet's Customer Service Department at 800-245-1600.

1. When is the surface ready for the next coat of Rust Bullet?

When applying additional coats of Rust Bullet or BLACKSHELL the previous coat should not be wet or tacky; if you are unable to transfer the coating to a gloved finger, the surface is ready for an additional coat. Approximate drying time between coats is two (2) to four (4) hours for Rust Bullet, and six (6) to ten (10) hours for BLACKSHELL depending on humidity levels. When excessive wet film is applied, additional cure time will be necessary. Rust Bullet Coatings are moisture sensitive; in high humid conditions of 80%+, Rust Bullet will cure much faster than it will in lower humidity. When applying additional coats from one day to the next, especially in the morning, make sure there is no dew or condensation on the previous coat. The surface to be coated must be completely dry.

Rust Bullet® ***Rapid Fire Accelerator*** can be added to the Rust Bullet Standard and Rust Bullet *Automotive* formulas to decrease the normal recoat time of 2 to 4 hrs to

approximately 30 to 40 minutes per coat; and to Rust Bullet BLACKSHELL to decrease the normal recoat time of 6 to 10 hours to approximately 1 hour. ***Rapid Fire*** makes it possible to apply multiple coats of Rust Bullet in a single day and reduces project completion time by as much as 80%. A Rust Bullet coating accelerated with ***Rapid Fire*** can be applied with either an HVLP Spray System or an Airless Spray System. For maximum rust prevention, ensure that corners, edges, and heavily pitted areas are adequately covered. Apply an adequate number of coats sufficient to achieve the dry film thickness appropriate for the project.

2. Why do I need to apply at least two coats of Rust Bullet?

Rust Bullet releases carbon dioxide gas during the curing process. This "gassing off" process may create small pin holes in the first coat of Rust Bullet. The second or third coat seals these tiny pin holes, forming an air tight armor tuff seal that protects the surface. If the pin holes are not sealed, air and moisture may penetrate Rust Bullet, allowing rust and corrosion to form. Rust Bullet is a simple to apply, low maintenance, super tough, high performance rust inhibitive coating. The first coat of Rust Bullet penetrates and dehydrates the rust down to the original metal surface. The second coat of Rust Bullet is necessary and critical to fill any pin holes in the first coat and ultimately forms an armor like shield on the surface. A two to three coat application generally achieves a dft (dry film thickness) of the required 6 mils for normal applications. Additional coats may be necessary to achieve the appropriate dft for your project.

3. What do I do if I waited too long to apply my next coat of Rust Bullet?

If an additional coat of Rust Bullet is needed and more than 72 hours have passed, the coated surface should be etched with **Rust Bullet Metal Blast** or scuffed up with 100 grit sandpaper to reopen Rust Bullet's pores. This will allow proper adhesion of an additional coat. This 72 hour period is decreased in areas with higher humidity levels.

4. When can I apply a Topcoat?

Approximately 24-48 hours after the application of the final coat of Rust Bullet, the surface may be top coated. Rust Bullet's phenomenal adhesive properties will accept most topcoat paints. If more than 72 hours have passed since the final coat of Rust Bullet was applied, the surface should be etched with Rust Bullet Metal Blast or scuffed up with 100 grit sandpaper to reopen Rust Bullet's pores to ensure proper adhesion of a topcoat. This 72 hour period is decreased in areas with higher humidity levels.

If a spray application of Rust Bullet has been accelerated by adding **Rust Bullet® *Accelerator Rapid Fire***, a topcoat may be applied one hour after the final coat of the accelerated Rust Bullet coating has been applied.

Rust Bullet and Rust Bullet *Automotive* are metallic gray in color; it is only necessary to apply a topcoat if you desire a different color other than metallic gray. Rust Bullet BLACKSHELL is formulated specifically as a topcoat for both Rust Bullet Standard and Rust Bullet *Automotive* formulas if a smooth gloss black finish is desired. BLACKSHELL is scratch and chip resistant, UV resistant, as well as, resistant to Acid Splash and Chemical Solvents. BLACKSHELL is an excellent protective stand alone coating, requiring no basecoat or topcoat; however, the combination of BLACKSHELL over Rust Bullet or Rust Bullet *Automotive* will provide the ultimate surface protection.

5. Why do I have Bleed Through?

You should not have rust coming to the surface unless Rust Bullet was improperly applied. Wipe down the coated surface with Xylene or other approved solvent and inspect the surface to rule out the possibility that the rust stains are caused by rusty water or fluid that has dripped onto the surface coated with Rust Bullet from another area that was not coated. If another application of Rust Bullet is necessary due to an inadequate initial application, etch the existing coating with **Rust Bullet Metal Blast** or scuff up the surface with 100 to 150 grit sandpaper and apply an additional two coats of **Rust Bullet** or **Rust Bullet** *Automotive*. Remember, surfaces to be coated must be completely dry.

6. What causes bubbling in the finish of a project coated with Rust Bullet?

The Three most common reasons for bubbling are:

- Applying Rust Bullet too thick. As Rust Bullet cures, small gas bubbles can get trapped in overly thick areas of the coating, creating bubbles in the finish. When using a brush or roller, Rust Bullet should be applied evenly without buildup in a crosshatch method (an up and down, side to side continuous motion).
- Prematurely applying a subsequent coat over a partially wet previous coat will trap the escaping gas during the curing process causing bubbles in the finished coating.
- Shaking the can creates air bubbles in the product. Prior to application, Rust Bullet must be stirred thoroughly until completely uniform and homogeneous (approximately 3 minutes). Shaking the container may cause the formation of bubbles in the finish of the coating. Avoid whipping air into product. Do not use electric or mechanical mixing devices that will whip air into the product.

7. Should I apply Rust Bullet only where rust is apparent?

Rust Bullet is designed to protect rusted and clean metal. It is always advantageous to protect metal, even when there are no visible signs of corrosion. If Rust Bullet is applied only in the rusted areas, it will stop the rust on that surface area, but the uncoated area will be left unprotected. Remember, if it's made of iron or steel, it will rust and corrode if left unprotected.

8. Can Rust Bullet be applied on damp or wet surfaces?

Rust Bullet is moisture sensitive. It is extremely important that the surface to be coated is completely dry to allow proper curing and adhesion. Extreme care should be taken to ensure all coating projects are completely dry.

9. What is the Temperature Service Range of Rust Bullet Coatings?

After curing, all Rust Bullet coatings have a service temperature range of 314°F (157°C) continuous, and can tolerate maximum temperatures between 617°-662°F (325°-350°C) for up to 72 hour periods.

10. What can be used to Thin Rust Bullet?

The exact balance of viscosity, solvent, and active ingredients must be maintained; therefore, Rust Bullet must not be thinned. Thinning or adding any

other product to Rust Bullet will compromise the performance and quality of the finished product. Rust Bullet® *Automotive* (Silver Label) is formulated slightly thinner than Rust Bullet Standard (Gold Label) and can easily be sprayed through an HVLP, Automotive Finishing Gun.

11. Can I pour Rust Bullet into another container?

Yes. If, for any reason, Rust Bullet is transferred to another container; clean, unlined, paint cans (or similar unlined metal containers) must be used. Make sure that the container can be properly sealed. Stir the contents for at least three minutes before transferring any portion of product to a different container.
During application, pour out the portion you will use in approximately one hour and reseal the lid as soon as possible.

12. How do I remove Rust Bullet from skin?

Take precautions to avoid contact of Rust Bullet Products with skin, clothing, or other objects not intended to coat. Use gloves, safety glasses, and other protective equipment. If Rust Bullet coatings come in contact with skin, immediately wash with soap and water for at least 15 minutes. Rust Bullet that has dried on the skin will wear off in approximately seven to ten days.

SAFETY TIPS

For Detailed Safety Information, refer to the Product MSDS

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. Ensure adequate ventilation and fresh air when working with Rust Bullet coatings. Use a NIOSH Approved Respirator with an 8051 Organic Vapor chemical cartridge and an R95 filter attached with a filter cover. Filters must be changed if and when they become saturated. Wear protective clothing, gloves, and eye protection during set up, application, and clean up.
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 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.

PREPARATION, STORAGE, and CLEAN UP

STIRRING and MIXING

- Do not open and stir a Rust Bullet coating when the temperature is below the dew point.
- Rust Bullet coatings should be stirred thoroughly for at least 3 minutes or until completely uniform and homogenous (avoid whipping air into product). Shaking the container prior to application may cause the formation of bubbles in the finish of the coating. **Never stir the product by mechanical means;** this will trap air molecules containing moisture between the coating and the surface causing improper curing and possible coating failure.
- Rust Bullet products that have been sitting for six months or longer may develop settling. Follow the same stirring instructions, but increase the stir time and be sure to break up any clumps on the bottom of the container, if any.

- The exact balance of viscosity, solvent, and active ingredients must be maintained; therefore, Rust Bullet coatings must not be thinned. Thinning or adding any other product to a Rust Bullet coating will compromise the performance and quality of the finished product.

PRODUCT STORAGE and HANDLING

- Care should be taken to ensure that new unopened containers or left-over partial containers are kept sealed. A plastic polyethylene film may be laid on top of remaining material to displace as much air as possible.
- Rust Bullet coatings are moisture sensitive; limit the time the container is opened. During application, pour out the portion you will use in approximately one hour and reseal the lid as soon as possible. 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 back into the original container any Rust Bullet coating that has been exposed to the outside air for any length of time because it will destroy the remaining product.
- The shelf life of Rust Bullet coatings is at least two years for unopened containers and approximately three to four months for containers that have been opened. Product storage temperature range is 33°F to 120°F. Rust Bullet is a specialized moisture sensitive product; containers that have been opened should be used within in a few months for proper coating performance.

CLEAN UP TIPS

- Use Xylene, Toluene, or MEK. Do not substitute any other solvent. 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.
- Spills must be cleaned up immediately or the product will harden and become next to impossible to remove. Avoid getting on body, clothes, or any surface not intended to be coated. Rust Bullet coatings are permanent; after curing, Rust Bullet can only be removed with rigorous abrasive action. Clean up fresh, uncured Rust Bullet immediately by using Xylene, Toluene, or MEK, following the solvent manufacturer's directions. Washing with soap and water may work, if done immediately.
- Application equipment must be cleaned immediately after use to avoid damage. Thoroughly 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. Dunking dirty equipment in solvent will not prevent the coating from curing overnight.

IMPORTANT POINTS TO REMEMBER WHEN USING RUST BULLET PRODUCTS

- Never allow sweat, rain, mist or other contaminates to fall into a Rust Bullet coating. Even a drop or two can drastically affect results.
- Rust Bullet coatings are ready to use right from the can. Rust Bullet coatings should be stirred thoroughly for at least 3 minutes or until completely uniform and homogenous (avoid whipping air into product). Shaking the container prior to application may cause the formation of bubbles in the finish of the coating. **Never stir the product by mechanical means;** this will trap air molecules containing moisture between the coating

and the surface causing improper curing and possible coating failure. Pour out of the can what you intend to use in the next 45-60 min. Remember to keep the lid on the remaining product.

- Never allow lacquer thinner, vinyl thinner, epoxy solvent, or any alcohol or unapproved solvent to enter a Rust Bullet coating.
- For clean-up use only clean Xylene, Toluene, or MEK.
- Never neglect to purge all paints, moisture, or debris from equipment before spraying a Rust Bullet coating.
- Never apply a Rust Bullet coating while raining or under threat of rain.
- Rust Bullet coatings do not require a topcoat. If one is desired, wait 24 to 48 hours after the application of the final coat of Rust Bullet.
- Only pour out what you intend to use in one hour and replace the lid immediately. Wipe clean any coating from the rim of the container before resealing.
- Never pour back into the original container; any Rust Bullet coating that has been exposed to outside air for any length of time, as this will destroy the remaining product.
- 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 coating with the excess plastic exceeding beyond the rim of the container. This will displace as much air as possible from the remaining coating and will help prevent the lid from permanently sealing closed.

To Order Rust Bullet Products:

You may order Rust Bullet Products online using our Secure Shopping Cart at www.RustBullet.com, or by calling Rust Bullet's Customer Service Department at 800-245-1600 or 775-829-5606. For customer convenience, both are available 24 hours a day, 7 days a week.

Please contact our Customer Service Department at 800-245-1600 or info@rustbullet.com with questions, concerns or comments.

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