

Instructions for sealing Rusted & Mild Steel Metals with Everbrite™ or ProtectaClear®

Everbrite™ coating is suitable for most rusted metal and mild steel projects. It is thicker and works well with porous metals like naturally rusted metal, corten or other steels. For certain rusted metal projects ProtectaClear® is needed for rusted metal countertops, sinks, or any surface that gets a lot of high use or abuse which will require the hardness of ProtectaClear®.

ProtectaClear® is thinner, so additional coats will likely be needed.

5 Basic Steps - READ ALL INSTRUCTIONS THOROUGHLY BEFORE STARTING

1. Neutralize Acids (if needed)	2. Smooth (if needed)	3. Dry Completely	4. Solvent Wipe	5. Apply Coating
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Preparation

Thorough preparation is very important. If you try to take shortcuts on preparation, you will likely not achieve the intended results and may need to remove the coating and start again. Everbrite Coatings can be removed from rusted metal with solvents like Xylene, or they can be removed mechanically by sanding for larger areas.

1. NEUTRALIZE ACIDS

If the metal was artificially rusted with acids, neutralize the acid to stop the rusting process. Use EZ Prep™ Cleaner & Neutralizer in a solution of 1 part EZ Prep to 4 parts water. As an alternative use 1 cup baking soda mixed with 4 litres of water. (or a similar ratio) Be careful to cover the entire surface at least once. Wipe, pour or spray the neutralizing solution on the surface being careful to completely neutralize. Rinse twice with clean water.

2. SMOOTH DRY SURFACE

Smooth rough or rusted metal. The thicker the rust, the more coating it will take to seal it. Remove any loose, flaking or blooming rust. Use our Grey Prep Pads (dry) or synthetic steel wool pads (dry) to remove excess rust and to smooth the metal on a dry surface. (Do NOT use steel wool pads; only use **synthetic** steel wool) A soft brush can be used to remove excess residue. Remove any loose, flaking or blooming rust.

3. DRY COMPLETELY

It is essential that the rusted metal be completely dry before coating. Rusted metal is porous and can hold moisture that can interfere with good adhesion. Even when the metal appears dry, it can still hold moisture. Moisture trapped in the metal can cause white or yellowish spots to appear under the coating. Warming the metal with heat guns, hair dryers, or extra time (a few days) in warm sunny breezy weather will help trapped moisture evaporate. It is important to protect rusted and mild metals from damp rainy weather until all coats have been applied and allowed to cure.

Let the surface cool before solvent wiping and applying the coating. The surface can be warm but not hot.

4. SOLVENT WIPE

Solvent wipe or spray the metal with **methylated spirits or acetone** to remove any traces of residue and to help dry the surface. The solvents dry quickly and help to remove moisture from the metal. This step needs to be done immediately before coating. Do NOT dilute or rinse the solvent. **Skipping this step will result in poor adhesion of the coating.** (Solvent is not included in kits – available at hardware stores)

Coating Preparation

- **Natural Gloss:** There is NO requirement to stir clear natural gloss coating.
- **Satin Finish:** You MUST stir satin finish coating well for **5 to 10 minutes** before applying because the flattening agent in the coating will have settled. Failure to stir thoroughly before you start and frequently while applying the satin coating may result in an uneven streaky finish.
- **Do NOT shake the cans** to avoid bubbles appearing in the coating.
- **Do NOT thin the coatings** with any type of solvent as the coatings will fail.
- Pour some of the coating into a clean, dry, metal or glass container. If you are using a standard plastic vessel like an ice cream container, or plastic roller tray then you must line it with two layers of aluminium foil as the coating will melt the plastic if left to dwell inside it.

Personal Protection: Allow for adequate ventilation. Only use nitrile powder-free gloves or chemical resistant gloves as rubber gloves will become sticky. Wear eye protection. Allow for adequate ventilation. If spraying with an HVLP or airless sprayer, a NIOSH respirator is recommended.

CLEANING & PREPARATION TIPS

ALTERNATIVES TO PREP PADS: In place of our synthetic 'steel' wool Grey Prep Pads, any fine, 000 or 0000, synthetic 'steel' wool pad or Teflon® safe kitchen sponge can be used. Do NOT use regular steel wool as it can leave particles that will rust.

EZPREP NEUTRALISER: Do **NOT** waste your EZPrep solution. You may store made-up neutralising solution in a plastic container like a milk bottle. No matter how dirty it looks it will still work and it is being rinsed off well with clean water.

The EZPrep solution is not corrosive - it will not damage your cladding or deck paintwork, or hurt your plants, but we do recommend that you wet the surrounding surfaces first to prevent possible 'water staining'.

TIPS:

ONLY USE Methylated Spirits or Acetone as the solvents for solvent wiping rusted metals, corten and mild steel as they help remove moisture better.

NEVER use isopropyl alcohol (nor turpentine) as these contain oil and your coating will not adhere.

5. COATING APPLICATION

The surface to be coated must be scrupulously clean, sterile and bone dry.

• FIRST COAT

The first coat must be rolled or brushed on: Use a small diameter high density foam roller or smooth microfiber roller; or a natural bristle brush.

Rusted metal is very porous, so it is important to get a good first coat on the metal **using a roller with moderate pressure (with plenty of coating on the roller) or a natural bristle brush** to ensure full penetration of the coating into the porous surface. **THIS IS REALLY IMPORTANT.**

Roller Application

Submerge applicator roller completely into the coating. The roller should be saturated but not dripping. This is important as dry areas in the roller will cause streaks. The roller should roll smoothly. When it starts showing resistance, re-dip the applicator roller into the coating again. If you get drips, simply smooth them out before the coating starts to dry.

Natural Bristle Brush Application

Use a good quality natural bristle brush (or a compatible synthetic brush as supplied in the Residential kits) Dip paint brush completely in the coating. Lightly tap the side of the paint brush on the side of the container. The brush should be full of coating but not dripping. Ensure complete coverage. When the brush starts showing resistance, re-dip the brush into the coating again. If you get drips, simply smooth them out before the coating starts to dry.

The first coat will soak up far more coating than subsequent coats.

YOU MUST NEVER SPRAY ON THE FIRST COAT.

• SECOND & SUBSEQUENT COATS

Use the recommended roller type, a natural-bristled paint brush or HVLP Airless paint sprayer with a fine-finish tip. Apply subsequent coats to the surface using light pressure, letting the applicator "glide" across the surface. The applicator should glide smoothly.

When spraying larger areas a 50/50 overlap is recommended.

Let the coating dry completely. It will self-level as it dries. Everbrite coatings are self-annealing; meaning the second coat will become part of the first coat. Wait at least one hour between coats or until the previous coat is completely dry.

Due to the porous nature of rusted metal and the varying degree of rust, three (3) or more coats will be required.

After the third coat is completely dry, run a clean dry white cloth over the coated surface, if any rust transfer is present on the cloth, additional coating is needed. Apply additional coats, testing with a clean dry white cloth after each coat, until there is no transference of rust onto the cloth.

- **GENERAL APPLICATION TIPS:** Do NOT use circular motions to apply the coating. Use a smooth motion and finish each section at a time. Quickly observe for runs, drips, or sagging and simply smooth them out before the coating starts to dry within a couple of minutes.

Observe the coating while applying: if the coating separates or does not look completely smooth; then **STOP; and remove the wet coating with methylated spirits or xylene** and re-clean the surface properly. Other chemicals present on the surface can cause separation and need to be removed completely. Then dry the surface completely and solvent wipe again before applying the coating.

- **CURE TIME:** The coating is an air dry solvent, so heat and air circulation hastens curing. Under normal circumstances and with good ventilation, the coating will be cured after 5 to 7 days. The coating is delicate until fully cured, which can take up to two weeks. You can shorten cure time by gently heating the coating AFTER it is dry to the touch. Smaller items can be placed in a low temperature oven (60°C - 80°C) for 1 hour and will be cured when cooled. The coating **MUST** be fully cured before prolonged contact with other surfaces; e.g. packaging, allowing water to sit on the coated surface, immersing in water or filling fountains, etc. In most cases, dew or rain does not hurt the coating once it is dry for 3 to 4 hours. **But do not allow pooling water to remain on the surface of the coating for a minimum of two weeks after coating.**
- **AFTER CARE:** Do NOT use solvent or citrus based cleaners or abrasives to clean coated metal. Do not use cleaners with *petroleum distillates*. **Suggested cleaner:** Mild dish soap and water.
- **MAINTENANCE & LONGEVITY:** Once coated the coating is easy to maintain. For rusted metals perform a rust transference test periodically to check if recoating is needed. Wipe with a damp cloth to remove dirt and residue, dry well, and recoat. The coating longevity is dependent on proper application of the coating, the environment, and general use and abuse.
- **SHELF LIFE OF THE COATING:** *Natural gloss* coating has an indefinite shelf life if stored in an air tight metal or glass container. Keep any extra coating for touch ups. We recommend cleaning the threads of the lid/cap with methylated spirits before reattaching it. The *Satin finish* coating will settle, eventually becoming hard to mix well due to the flattening agent.

DANGER: COATING IS HARMFUL OR FATAL IF SWALLOWED.

FIRST AID In case of eye contact, flush thoroughly with plenty of water for 15 minutes and get medical attention. Reports have associated repeated and prolonged over-exposure to solvents with damage to health. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

CAUTION Combustible liquid. Material does not sustain combustion. Do not smoke or use near flame. Use with adequate ventilation. Avoid continuous breathing of vapour/spray and avoid prolonged contact with skin. Wear nitrile gloves and eye protection.

KEEP OUT OF REACH OF CHILDREN

Please read and follow all directions and cautions on packaging & Material Safety Data Sheet

SETTING A SPECIFIC PATINA DESIGN:

If a specific patina design is not to be disturbed, dab the coating on the surface first with an applicator cloth. Let the dabbed coating dry completely. Then apply the first rolled coat.

TEMPERATURE & HUMIDITY MATTERS:

Coating is best applied in temperatures from 13 - 30 degrees °C and without humidity. The temperature of the metal is more important than the air temperature. Do not apply the coating if the metal is too hot otherwise the coating starts to flash off too quickly and will not have enough time to self-level. The metal is too hot if you cannot place the back of your hand on it for 10 - 15 seconds. If the metal is too cold, warm the metal with a heat gun, hair dryer, or work in the sun or shade appropriately. If the coating sags this indicates that the metal is too cold as it is not flashing off fast enough. Do not apply if the temperature is within 10 degrees of the dew point. You can access dew point information for your area on weather.com

PROTECT ANY ASPHALT OR CONCRETE:

Asphalt needs to be protected; the solvent in the coating will harm the asphalt if spilled. It's a good idea to put a tarp down to protect the concrete from being coated. It won't harm concrete but it will cause it to look shiny.

APPLICATOR TOOL CARE & CLEANING:

Rollers are discarded after use, but they will last for a while if wrapped well in aluminium foil to stop them from becoming hard between coats and during breaks. Wrap bristle brushes in foil during breaks too. Bristle brushes and spray tips can also be cleaned with Xylene solvent.

COATING REMOVAL: The coatings can be removed from rusted metals with solvents like Xylene or a Xylene substitute or they can be removed mechanically by sanding for larger areas. Small items can be soaked in solvent. Wear personal protection. Wet a cloth or paper towels with the solvent completely. Move the wet cloth over the coated metal with light pressure. Rubbing hard is not advised. When the coating begins to "melt", wipe it up and off of the surface. Repeat until the coating is gone.

TEST FIRST: For larger projects, it is recommended to test application of the coating in a small section before coating your entire project.

COATING COVERAGE PER COAT FOR SMOOTH METALS

Kit Name	mL Coating	Square metres ≤	Lineal metres joinery ≤
EBK120	120	2.3	25
EBK250	250	4.8	55
EBK480	480	9.2	110
EBK960	960	18.4	220
EBK3840	3,840	75.00	880

NOTE: Mild Steels and Rusted Corten are more porous than smooth metals; and can take up to 50% more coating for the first coat.