



Recommendations for Cleaning and Repainting of Prepainted Metal

Introduction

The Coil Coating process for metal is designed to give a long lasting finish that needs only periodic maintenance. Typical “steel” substrates are be Hot Dipped Galvanized (HDG), Galvalume® or Zinalume® Zinc Aluminum alloy coated steel (ZAL or GAL) or Cold Rolled steel (CRS). Aluminum is also commonly used.

These substrates are chemically cleaned and pre-treated then immediately coated to ensure the freshest surface possible for best adhesion and corrosion resistance. Special thermally catalyzed (heat cured) coatings are applied by direct roll coating and baking at high temperatures. For exterior building components, this process results in a finish that is quite hard and resistant to deterioration by weather. It’s just not easy to keep surfaces clean, but simple to restore the original appearance with minimal effort.

Cleaning of Pre-Painted Surfaces

The durability of the pre-painted metal finish is a combined result from the thorough cleaning, coating technology and baked-on curing. Designed to last for many years, periodic maintenance is necessary to keep the appearance looking good.

I. *Dirt and Similar Surface Contaminants*

It is certainly tough to keep things clean so periodic washing of the pre-painted metal may be desirable. Pre-paint is formulated to resist most mild cleaners and fresh water. The simplest solution of detergent in fresh warm water is best. Detergents like Tide® with less than 0.5% phosphate can be mixed at about one cup per five gallons of water. Using a sponge, soft cloth, or soft bristle brush clean an area then rinse immediately with fresh water, repeat as necessary. Take care not to scratch the painted surface.

II. *Chalking*

All paints exposed to direct sunlight will slowly degrade over the years losing gloss and leaving a powdery “Chalk”. Normally, rain and weather cleans up the loose particles. Unsightly chalk can be cleaned as if it were Dirt per “Section I”, with a mild soapy wash. Take care to rinse well and protect concrete or appearance critical surfaces below the pre-paint from staining.



III. Mold, Mildew

In warm humid climates, mold and mildew can grow on the pre-paint. If left on for extended periods, these spores will penetrate the coating reducing its life. Mix one cup of mild soap, like Ivory®, and one gallon of bleach into five gallons of water. Wash the surface with a sponge or soft bristle brush for stubborn stains, and rinse with fresh water. Take care with this solution to protect your eyes, skin etc. and surrounding areas that may be bleach sensitive, plants, carpet, cloth, etc.

IV. Grease, Oil, Wax, Etc.

Cleaning with detergent and water, as in "Section I" should be tried first. Small areas can be cleaned with commercial kitchen cleaners, like Fantastic®. Large areas may require a commercial grease remover like Simple Green® in a solution of water. A less desirable alternative is to wipe with solvent like Xylene or Naphtha. Use plenty of clean cloths to avoid recontaminating the surface or just moving the grease around. Observe all precautions for personal safety and fire hazards. Solvent wiping can affect the long term durability of the pre-painted metal by softening or removing film.

V. Things to Avoid

To retain the original film integrity of the pre-paint avoid damaging the surface. Stiff bristle brushes, wire brushes, abrasive cleansers do more harm than good. Power washers can be effective on very large surfaces, but care should be taken not to undermine the paint. Stop immediately if peeling is evident or if the pre-paint has been scratched or open to the substrate. Acid based cleaners like CLR® or high phosphate containing detergents may damage the finish. Strong commercial cleaners should be tested in a small area to determine if they cause any adverse affects.

Repair and Repainting

Damage from scrapes and scratches should be fixed as soon as possible to keep the surface from rusting. Sometimes the color of the pre-painted metal needs to be changed for aesthetic reasons. It is not necessary to remove all the pre-paint. Since it has a good clean, pretreated substrate the paint should be adhering well and provide a base for subsequent coatings. One area needs to be addressed, the degree of surface preparation to get adhesion for the recoat.

VI. Minor Scratches – Cosmetic

If the scratch does not break the continuous coating film, down to the substrate, repair can be easy. Begin with washing of the surface with detergent (see "Section I") and allow to dry. Lightly sand with Emery cloth or fine (400) sandpaper to smooth the scratch and surrounding area. Wash and allow to dry. Apply touch-up paint sparingly.



VII. Major Scratches – Repair

Scratches down to the substrate need a little more care to prevent corrosion. Use a wire brush, scraper or sanding to remove rust. Clean the area to remove contaminants. Apply a rust inhibiting primer designed for the substrate metal and allow to dry. Topcoat with touchup paint.

VIII. Repainting-Adhesion Testing

Repainting the prepainted finish may be desirable to change color or to refresh the appearance after many years of weathering. Good quality 2 component Urethanes, Exterior Latex and Acrylic Finish paints are the most common used. Test a small area for compatibility with the pre-paint finish as follows. Clean the area with the appropriate method, normally detergent washing and fresh water rinse. Apply the re-finish and allow to dry 24-48 hours. Make an "X-Cut" with a utility knife into the repainted finish. Place a 3-inch strip of Scotch tape over the X and rub down 10 times with heavy pressure. Quickly remove the tape at a 180° angle. Examine for any signs of paint removal.

If normal cleaning does not provide intercoat adhesion, lightly rough the surface with 400 grit sandpaper and repeat the "X-Cut" adhesion test. If this does not succeed, we do not recommend repainting.

IX. Responsibilities

The refinisher has complete responsibility to insure adequate intercoat adhesion is obtained. Dura Coat cannot accept any responsibility for any adhesion failure on repainted finishes. Dura Coat Products Inc. makes no guarantees on these repaint and repair guidelines either express or implied. These recommendations are made to the best of our knowledge. We recommend that you contact Dura Coat Products Inc. at (909) 341-6500 if there are any questions.