MULLET'S ALUMINUM PRODUCTS INC.

Cleaning and Maintenance Guide

MAPI Architecturally Finished Aluminum

and Stainless-Steel Products

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OVERVIEW

High quality architectural painted products, anodized finished products, and mill finish stainless steel products are extremely durable and perform well in most environments. While these products provide the highest performance of all metal products, appropriate care and maintenance is required for a long service life.

Most common damage to finishes can result from a variety of sources including:

- Final cleaning of the building façade without proper protection of the aluminum surfaces.
- Environmental impact from coastal or corrosive atmosphere exposure.
- Use of incorrect cleaning solutions.
- Long term neglect and lack of following recommended cleaning and maintenance procedures.

This guide discusses the recommended care and cleaning of painted aluminum, anodized aluminum and stainless steel.

THE CARE AND CLEANING OF PAINTED ALUMINUM

Today's factory-applied, heat-cured painted finishes are durable and very colorfast. However, to ensure that they retain their original beauty these highly durable finishes should be cleaned four (4) times per year and six (6) times per year in a saltwater environment.

The simplest cleaning method is to flush the painted aluminum surface with water using moderate pressure to extricate dirt and soil. This can be accomplished with a garden hose or pressure washer. If soil is still adhering after drying the finished surface, a mild cleaning solution should be used.

When selecting a cleaning solution use a mild soap solution that is safe for bare hands, such as products used to wash a car. Avoid the use of strong acid or alkali cleaners as they may damage the finish.

Solvents no stronger than mineral spirits or denatured alcohol may be used to remove grease, sealants, or other materials. Never mix cleaners and solvents as the resultant mixture can cause harmful or even dangerous results. Do not use abrasive cleaners or materials such as steel wool or abrasive bushes which also can scratch the surface.

A 5% solution in water of commonly used commercial (non-industrial detergents) will not have any destructive effect on a painted surface. These solutions should be followed by an adequate rinse of water. Use a cloth or sponge for application.

In areas subject to high humidity levels, dirt and spore deposits can permit mildew growth to occur.

Chlor-Wash Multi-Purpose Cleaner distributed by CHLOR-RID International Inc., www.chlor-rid.com , is a product that MAPI recommends for maintenance wash that will eliminate dirt and salt build up that lead to corrosion of metals.

It is not recommended that any paint remover or acetone be used on a painted surface.

Solvents that may be used to remove non-water-soluble deposits such as tar, grease, oil, paint and graffiti from painted surfaces include:

- Isopropyl (rubbing alcohol)
- Denatured alcohol (ethanol)
- Mineral Spirits

After the heavy soil, grease or sealant is removed, a mild soap solution should be applied with a soft cloth, sponge, or soft brush. Rinse the surface thoroughly with clean water and dry with a soft cloth. The cleaning solution should only be applied to the direct area that is being cleaned. Run-down of cleaner should be minimized and rinsed off quickly and rinsed until the run-down is no longer visible. Do not allow cleaning chemicals to puddle on horizontal surfaces such as window sills. Always clean aluminum surfaces from the top elevation to the bottom and follow with rinsing from top down.

In coastal areas where the finish is exposed to salt spray or in areas containing heavy industrial pollutants, the cleaning should take place at least six times per year. Give added attention to recessed and sheltered areas that usually become more heavily soiled because of lack of rain washing.

The aluminum cleaning program should be integrated as part of the regularly scheduled building cleaning and maintenance program. As an example, both the glass cleaning and aluminum curtain wall can be cleaned at the same time.

Misuse or abuse of any of the cleaning agents listed in the cleaning agents listed in this guide could result in voiding of warranty.

THE CARE AND CLEANING OF ANODIZED ALUMINUM

Anodized material has an extremely hard surface that is very colorfast and mar resistant. A Class 1 clear or anodized finish applied by a high-quality anodizer specializing in architectural finishing will provide consistent color and long product life in a variety of applications.

Much like painted surfaces an anodized finish should be cleaned using mild soap solutions to retain its original beauty. **Refer to the care of painted finishes above and follow same procedures.** Products that are safe for use with bare hands, including most commercial cleaning products can be safely used.

The cleaning solution should be applied with a soft cloth or sponge. Avoid the use of strong acid or alkali cleaners.

As with painted surfaces in coastal areas where the finish is exposed to salt spray or in areas containing heavy industrial pollutants, the cleaning should take place on a regular maintenance program.

THE CARE AND CLEANING OF STAINLESS STEEL

Stainless Steel is NOT stain or rust proof.

Stainless steel can discolor, rust, or corrode when in frequent contact with salt water, chloride salts, sulfides, or rusting metals such as iron. Metal shavings can also leave small deposits that may result in the deterioration of stainless steel, if not properly removed.

With the same frequency as the general cleaning, stainless steel components on all MAPI Products require some additional steps to help preserve from corrosion and stains. After general cleaning, repeat cleaning on all stainless-steel components with a cleaner specific for the cleaning of stainless steel. After cleaning, a marine grade wax or sealant, specifically made for stainless steel, must be applied.

We recommend using Corrosion Block. This product, when applied correctly, will treat, protect, and block corrosion on non-ferrous and ferrous metals. Corrosion Block will leave behind a durable protective coating that guards against future corrosion, for up to 18 months. Shake well before using. Surface should feel lukewarm to the touch. Apply a THIN amount of Corrosion Block, to a 2X2 ft section at a time, with applicator pad. Rub well to loosen all tarnish, rust etc. Reapply as necessary until surface is free of embedded contaminants. Be sure to use Corrosion Block in a well-ventilated space and wash your hands after applying.

- Never use steel wool or steel brushes on stainless steel, this may create scratches in the product and or leave particles embedded on the surface which can lead to rusting.
- Strong acidic or caustic cleaners should be avoided.
- The appearance of rust streaks on stainless steel leads to the belief that the stainless steel is rusting. Look for the actual source of the rust in some iron or steel particles which may be touching, but not part of the stainless-steel component.
- Lack of cleaning leads to concentrations of aggressive substances that surpass the corrosion resistance of the stainless steel. Sea spray is a common source of corrosion deposits. Under these deposits, tiny corrosion pits can form, which may be surrounded by a brownish halo.

For any repair other than a small patch or blemish. Mullet's Aluminum Products, Inc. strongly suggests that a professional is called to inspect the situation and determine the best, suitable paint or repair procedure.

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