

# CARE AFTER INSTALLATION: PAINTED ALUMINUM

Care and maintenance guidelines for anodized aluminum also apply to painted aluminum. Painted aluminum does not normally show an appreciable amount of dirt accumulation. In many atmospheres, dirt and soil would not be detrimental to the coating, but cleaning and surface care may be desirable for the sake of appearance. In areas where heavy industrial deposits have dulled the surface, where materials from construction processes have soiled the surface, or where cleaner has run down from other surfaces, surface cleaning is desirable.

Climatic conditions affect the cleanliness of painted finishes in the same way they affect anodized coatings. In some areas, rainfall may be sufficient to keep exterior surfaces looking bright and clean. In areas of low rainfall or in heavily-industrialized areas, periodic cleaning will be necessary. This is also true of foggy, coastal regions with frequent cycles of condensation and drying, which may cause a build-up of atmospheric salts and dirt. In any climate, sheltered areas under overhangs may become soiled from lack of rain washing. Cleaning painted aluminum components in the exterior wall may be scheduled along with cleaning the glass. If automatic wall cleaning equipment is to be used on a building, a test should be made early in the equipment design to ensure that the cleaning solutions and brushes, as well as the frequency of cleaning, will have no detrimental effect on the painted finish.



## CLEANING: PAINTED ALUMINUM

Painted surfaces should be cleaned as soon as possible after installation to remove construction soils and accumulated environmental soils. Ideally, a forceful water rinse from the top down should be employed before applying any cleaner. Some type of surface agitation helps. A low volume of water of moderate pressure is better than high volume at low pressure. Rubbing the surface with soft brushes, sponges, or cloth during the rinsing also helps.

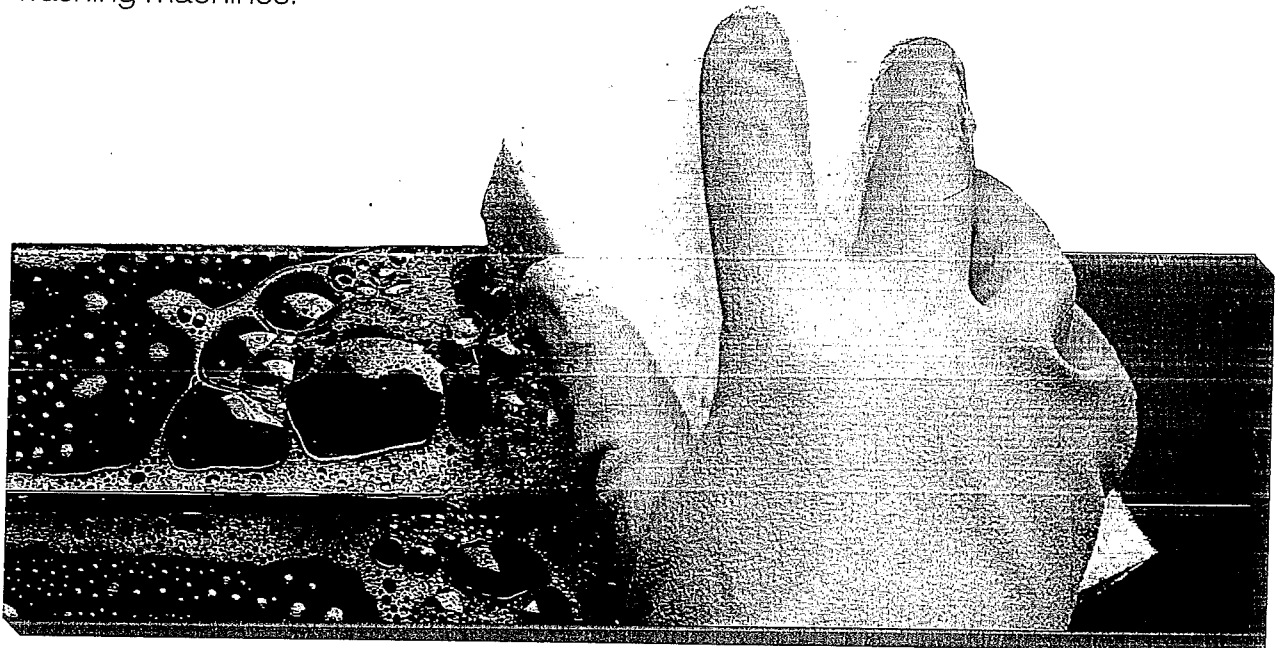
If a simple water rinse with brushing, sponging, or rubbing with a cloth is not sufficient to remove the soil, a mild detergent or mild soap will be necessary.

Washing with a mild detergent or mild soap should be done by brushing or sponging with uniform pressure: first horizontally, then vertically. Following the washing, the surfaces must be thoroughly rinsed with clean water. If the cleaner has been permitted to dry, it may be necessary to sponge the surface while rinsing. Rinsed surfaces may be permitted to air-dry or may be wiped dry with a chamois, squeegee, or lint-free cloth.

Cleaner run-down should be minimized and those areas subject to run-down should be rinsed immediately, and as long as necessary, to lessen the probability of streaking.

Cleaning chemicals must not be allowed to collect on surfaces, to puddle on horizontal surfaces, or to collect in joints and crevices. These surfaces, joints, and crevices should be thoroughly flushed with water and dried.

Mild detergents and soaps which are safe for bare hands should be safe for painted aluminum. Stronger detergents, such as some dishwashing detergents, should be carefully spot tested. Some of the latter necessitate using rubber gloves and long-handled brushes. Some mild cleaning solutions are available for automatic building-washing machines.



Mild solvents such as mineral spirits may be used to remove grease, sealant, or caulking compounds. Stronger solvents or solvent-based cleaners may soften paints. To prevent damage to the finish, the paint manufacturer should be consulted and these types of solvents or emulsion cleaners should be spot tested. Care should be taken to ensure that no surface marring takes place in this manner, since it could give an undesirable appearance at certain viewing angles. Cleaners of this type are usually applied and removed with a clean cloth. Remaining residue should be washed with mild soap and rinsed with water. Use solvent cleaners sparingly.

Since solvents may extract materials from sealants which could stain the painted surface or could prove harmful to sealants, their possible effects must be considered. Test a small area first.

If cleaning heavy, tenacious surface soil or stubborn stains has been postponed, a more aggressive cleaner and technique may be required. Cleaner and technique should be matched to the soil and the painted finish.

Some local, manual cleaning may be needed at this point. Always follow the recommendations of the cleaner manufacturer as to proper cleaner and concentration. Test a small area first. Do not use excessive, abrasive rubbing since it may alter surface texture or impart a shine to the surface.

Dried concrete spillage on painted surfaces may be difficult to remove. Special cleaners and/or vigorous rubbing with non-abrasive brushes or plastic scrapers may be necessary. Diluted solutions of Muriatic Acid (under 10%) may be effective in removing dried concrete stains. Effective proprietary cleaners for concrete and mortar staining are available; however, a test area should be tried first and proper handling precautions must be exercised for safety.

Mixing cleaners may not only be ineffective, but dangerous. For example, mixing chlorine-containing materials, such as bleaches, with other cleaning compounds containing ammonia, can produce poison gas.

Always rinse the surface after removing heavy surface soil.

# SUMMARY OF CLEANING TIPS

1. Over-cleaning or excessive rubbing can do more harm than good.
2. Strong solvents (like MEK) or strong cleaner concentrations can cause damage to painted surfaces.
3. Avoid abrasive cleaners. Do not use household cleaners that contain abrasives on painted surfaces.
4. Abrasive materials like steel wool, abrasive brushes, etc. can wear and harm finishes.
5. Avoid drips and splashes. Remove run-downs as quickly as possible.
6. Avoid temperature extremes. Heat accelerates chemical reactions and may evaporate water from cleaning solutions. Extremely low temperatures may result in poor cleaning results. Cleaning under adverse conditions may result in streaking or staining. Ideally, cleaning should be done in shade at moderate temperatures.
7. Do not substitute a heavy-duty cleaner for a frequently used, mild cleaner.
8. Do not scour painted surfaces.
9. Never use paint removers, aggressive alkaline, acid or abrasive cleaners.
10. Do not use trisodium phosphate or highly alkaline or highly acid cleaners. Always do a surface test.
11. Follow manufacturers' recommendations for mixing and diluting cleaners.
12. Never mix cleaners.
13. To prevent marring, make sure cleaning sponges, cloths, etc. are grit free.
14. Consideration must be given to the effects run-down may have on shrubbery, personnel, equipment, and other items located below. Such considerations may affect the timing in the cleaning schedule.

**Inspection:** It is suggested that the building owner or manager provide a qualified inspector to see that the cleaning operations are carried out in accordance with the recommended procedures.

## **AAMA 610.1 1979**

As in the case of anodized aluminum, the American Architectural Manufacturers Association released a publication entitled, "Voluntary Guide Specification for Cleaning and Maintenance of Painted Aluminum Extrusions and Curtain Wall Panels, AAMA 610.1-1979." This specification covers procedures to be used for sheet and extruded aluminum products used in curtain wall, window, and storefront construction.