

YOUR GATEWAY TO A
BETTER VIEW



GENERAL CARE & MAINTENANCE GUIDELINE

ALUMINIUM CARE & MAINTENANCE

Maintaining the appearance and performance of aluminium surfaces is crucial for those who utilize the material in their projects, such as architects, contractors, building managers, and owners. Regular care and maintenance is required to ensure that aluminium products have a long lifespan and continue to perform at optimal levels. It's important to be mindful that aluminium finishes, such as powder coating, coil coating, or anodizing, cannot be repaired or restored to their original condition using any hazardous substances. It's best to follow the manufacturer's guidelines for the proper care and maintenance of the specific alloy of aluminium being used.



IT IS IMPORTANT TO:

Identify the type of finish on the aluminium surface and establish a regular cleaning schedule to remove dirt, grime, grit, atmospheric pollutants, and discoloration to maintain its appearance and provide protection. This will help keep the aluminium surface looking attractive and help extend its lifespan.

KEEP YOUR ALUMINIUM JOINERY LOOKING ITS BEST

Proper care and maintenance of your aluminium joinery on your new windows and doors is essential in ensuring they remain in optimal condition. These resources will provide you with a comprehensive guide on how to properly care for your aluminium joinery.

It is important to establish a regular cleaning and maintenance program to meet warranty requirements and maintain the aesthetic appeal of your windows and doors for many years to come.

After the construction project is complete, it is important to thoroughly clean the interior of all window and door sills of any builder's debris and dirt to ensure drainage holes are not obstructed. This is particularly important for doorways that were frequently used during the construction phase. As part of your regular maintenance program, be sure to clean door sills, tracks and all drainage holes regularly.

DISCLAIMER

The information, recommendations, and advice provided in this H Systems (Pty) Ltd publication are given in good faith and are based on the current procedures and knowledge of the company. H Systems (Pty) Ltd cannot be held responsible for any loss incurred as a result of incorrect or faulty use of the publication. The company has taken great care to ensure that the information provided within this guideline is accurate. However, H Systems (Pty) Ltd will not be held responsible for any errors or omissions that may have occurred inadvertently.

These recommendations are intended to assist architects, contractors, owners, building managers, and others who are concerned with the care and maintenance of coatings for architectural aluminium installations. The suggested methods are intended to help establish safe and sound cleaning and maintenance procedures. Although certain proprietary products are mentioned, they are included solely as a reference.

The Aluminium Surface Finishers Association, operating under the aegis of the Aluminium Federation of South Africa, is the body that provides expert advice on finishing and maintenance of coatings for architectural aluminium.

Some of the information in this document is obtained from the Association of Architectural aluminium Manufacturers of South Africa (AAAMSA), and H Systems (Pty) Ltd acknowledges the origin.

GENERAL

Anodic and Powder Coatings on aluminium do not normally show an appreciable amount of dirt collection. In many atmospheres dirt or soil would not indicate a detrimental risk to the coating, but cleaning and surface care may be desirable for the sake of appearance.

Cleaning may become desirable in areas where heavy industrial deposits have dulled the surface, where materials from construction processes have soiled the surface or where cleaner run-down from other surfaces should be removed.

Local atmospheric conditions as well as building location within a geographical area quite naturally have an effect on cleanliness. Very often, rainfall may be sufficient to keep exterior surfaces appearing clean and bright. These factors coupled with owner perspective regarding surface appearance probably would determine cleaning schedules. Areas that are in direct sight at lower levels would more likely be cleaned.

Less obvious areas would be less frequently cleaned or in some instances, hardly at all. Cleaning of anodised and powder-coated aluminium may be scheduled with other cleaning. For example, glass coated aluminium components can be cleaned at the same time.

Cleaning will be more often required in areas of low rainfall or in heavily industrialized areas. Foggy coastal regions with frequent cycles of condensation and drying may tend to give a build-up of atmospheric salts and dirt.

In any climate, sheltered areas such as overhangs may become soiled because of lack of rain-washing. Thorough rinsing of Anodic and Powder Coatings on aluminium is especially important after cleaning of these sheltered areas.

CLEANING OF POWDER COATINGS ON ARCHITECTURAL ALUMINIUM

Construction soils, including concrete or mortar, etc., should be removed as soon as possible. Try to restrict cleaning to mild weather. Cleaning should be done on the shaded side of the building or ideally on a mild, cloudy day. Method of cleaning, type of cleaner, etc., of one component of the building must be used with consideration for other components such as glass, sealants, painted surfaces, etc.

- Over cleaning or excessive rubbing can do more harm than good.
- Strong solvents or strong cleaner concentrations can cause damage to painted surfaces.
- Perform a cleaning test patch in a lesser visible area, before cleaning the entire element.
- Avoid abrasive cleaners. Do not use household cleaners that contain abrasives on painted surfaces.
- Abrasive materials such as steel wool, abrasive brushes, etc., can wear and harm finishes.
- Avoid drips and splashes. Remove run downs as quickly as possible.
- Avoid temperature extremes. Heat accelerates chemical reactions and may evaporate water from solution.
- Extremely low temperature may give poor cleaning effects. Cleaning under adverse conditions may result in streaking or staining. Ideally, cleaning should be done in shade at moderate temperature.
- Do not substitute a heavy duty cleaner for frequently used mild cleaner.
- Do not scour painted surfaces.
- Never use paint removers, aggressive alkaline, acid or abrasive cleaners. Do not use trisodium phosphate or highly alkaline or highly acid cleaners. Always do a test surface.
- Follow manufacturer's recommendations for mixing and diluting cleaners.
- To prevent marking, make sure cleaning sponges, cloth etc. are grit free.



CLEANING OF ANODIC COATINGS ON ARCHITECTURAL ALUMINIUM

As with any finished building material, aluminium requires reasonable care prior to and during installation and periodic cleaning and maintenance after installation. Although anodized aluminium is exceptionally resistant to corrosion, discoloration and wear, its natural beauty can be marred by harsh chemicals, abuse or neglect. Such conditions usually affect only the surface finish but do not reduce the service life of the aluminium. Correctly identify the aluminium finish to be cleaned when selecting an appropriate cleaning method. Check specifications and/or as built drawings if in doubt as to finish.

- Never use aggressive alkaline or acid cleaners on aluminium finishes. It is important not to use cleaners containing trisodium phosphate, phosphoric acid, hydrochloric acid, hydrofluoric acid, fluorides, or similar compounds on anodised aluminium surfaces. Test clean a small area first. Different cleaners should not be mixed.
- Strong cleaners should not be used on windows and other building accessories where it is possible for the cleaner to come in contact with the aluminium.
- Cleaners containing strong organic solvents will have a deleterious effect on organic overlay coatings, but not on anodised aluminium.
- Solutions of water and mild detergents should be used on windows.
- It is preferable to clean the metal when shaded. Do not attempt to clean hot, sun-heated surfaces since possible chemical reactions on hot metal surfaces will be highly accelerated and cleaning non-uniformity can occur. Surfaces cleaned under these adverse conditions can become streaked or stained so that they cannot be restored to their original appearance. Also avoid cleaning in freezing temperatures or when metal temperatures are sufficiently cold to cause condensation.
- Apply the cleaning solution only to an area that can be conveniently cleaned without changing position. Thoroughly rinse the surface with clean water before applying cleaner. Minimize cleaner rundown over the lower portions of the building and rinse such areas as soon and as long as practical.



REMOVAL OF LIGHT SURFACE SOIL (ANODIC COATINGS)

- Removal of light surface soil may be accomplished by alternative methods, work should start at the top of the building by rinsing an area the width of the stage or scaffolding to the ground level in continuous drop with forceful water spray. This should be done at the beginning and the end of each drop regardless of the final cleaning materials employed.
- The simplest procedure is to flush the surface with water using moderate pressure to dislodge the soil.
- If the soil is still present after air-drying the surface, clean the surface with a brush or sponge and water (concurrent spraying with water and sponging).
- If soil is still adhering, then a mild detergent cleaner should be used with a brush or sponge. The washing should be accomplished with uniform pressure, cleaning across the metal surface in the direction of the metal grain. The surface must be thoroughly rinsed by spraying with clean water and thoroughly dried.

Caution:

MEK and similar solvents may damage organic sealants, gaskets and finishes used on window, curtain wall and stopfront assemblies. They must be used with great care and not allowed to come in contact with organic materials. Their use must be avoided on anodic finishes protected by clear organic coatings. Organic solvents should be used only in accordance with manufacturer's safety recommendations.

REMOVAL OF HEAVY SURFACE SOIL (ANODIC COATINGS)

- Hand scrub the metal surface using a palm-size nylon abrasive cleaning pad, thoroughly wet with fresh water or a mild detergent cleaner. Start at top and work down, rubbing with uniform pressure across the metal surface in the direction of the metal grain.
- Scrubbing with a nylon-cleaning pad wet with surface protecting material is also suggested for removing stubborn soils and stains.
- After scrubbing, the metal surface should be rinsed thoroughly with clean water or wiped with solvent to remove all residues. It may be necessary to sponge the surface while rinsing, particularly if cleaner is permitted to dry on the surface.
- The rinsed surface is either permitted to air dry or is wiped dry with a chamois, squeegee or lint-free cloth.
- Use of power cleaning tools may be necessary for removal of usually heaving soils from large areas including panels and column covers.

Caution:

These procedures must not be used on surface with a factory applied clear organic protective coating (lacquer) unless the clear coating has deteriorated and should be removed.

MAINTENANCE OF HARDWARE AND ACCESSORIES

Remove the dust, grease and graphite from the following areas:

- Window gearing
- Friction hinges
- Moving parts of the handles
- Locks and cylinders, using a graphite pipette and graphite powder
- The opening restrictor of the sliding element

Clean hardware exclusively with a soft cloth and mild, pH-neutral cleaning materials in diluted form.



Warning!

- Avoid silicon free lubricants, rather use a dry cloth and fitting oil to protect the surface and prevent dust collection on the hardware parts.
- Do not lubricate the composite rods or door hinges.
- Never use aggressive acidiferous cleaning materials or scouring agents. These can cause damage to the hardware.

Visible Parts

Clean the mechanism and remove any traces of dirt. Use a soft cloth and mild, pH-neutral cleaning material in diluted form. Check all the components that are important for safety (hinges, extension arms). In particular, the hinges should be checked for damage and/or deformation due to violent impact.

Friction Stays

Clean all dirt, dust and debris from all parts of the product and keep any obstructions away from the pivoting and sliding parts. Use a vacuum cleaner or a small soft brush to remove dry materials. Use a dry cloth to remove any remains of dirt. Apply a silicon free lubricant on all pivoting and sliding parts of the products, wipe any excess lubricant over the surfaces of the hinge mechanism links using a soft lint free cloth.

Window Handles

Clean the mechanism and remove any traces of dirt. Use a soft cloth and mild, pH-neutral cleaning materials in diluted form. Check the operation of the components.

Door Handles

All movable parts and locking parts have to be oiled and their working order should be checked. The cylinder can be maintained by using graphite powder.

Hinges

Our hinges generally require no lubricant; if a squeaking noise is heard apply a silicon free lubricant to hinged surfaces.

MAINTENANCE OF HARDWARE AND ACCESSORIES

Locks

If locks are sticky use silicon free lubricant or Graphite lock powder available from most locksmiths.

Sliding Door Wheels

Spray or apply a silicon free lubricant into the wheel housing/bearings. Clean excess lubricant as it will attract dust. Ensure the track is clean and free of debris. A vacuum cleaner will remove dust the best.

Sliding Folding Door Wheels

If sliding folding door wheels are sticky, spray or apply a silicon free lubricant into the wheel housing/bearings. Clean excess lubricant as it will attract dust. Ensure the track is clean and free of debris. A vacuum cleaner will remove dust the best.

Sliding Folding Door Top Guide

Spray or apply a silicon free lubricant onto the top track and guide rollers to lubricate. Ensure no excess lubricant remains on the aluminium.

Flush Bolts

Spray or apply a silicon free lubricant into the mechanism and operate it a few times to ensure the lubricant is applied equally.



CLEANING INTERVALS GUIDELINE OF ARCHITECTURAL ALUMINIUM

It is inevitable that atmospheric pollutants, dirt and grime will settle on aluminium products. If not removed regularly, these deposits may cause damage to the finish, as well as pitting and corrosion of the aluminium itself. In more extreme cases, this damage may not be reversible or repairable, if not regularly maintained. The specific cleaning interval will depend on the degree of soiling, exposure to pollution and weather conditions. It's essential to conduct regular visual inspections and clean before the surface becomes heavily soiled.

Recommended cleaning and checking at the following intervals for different environments:

ENVIRONMENT	DESCRIPTION	CLEANING INTERVAL
MILD	More than 10km from beachfront	Every 6 months (minimum)
MODERATE	More than 10km from beachfront	2 to 3 months (minimum)
MARINE	500m to 5km from beachfront	2 to 4 weeks (minimum)
SEVERE MARINE	Within 500m of beachfront	1 to 2 weeks (minimum)

Notes:

- Beachfront refers to breaking surf air borne moisture.
- Fresh water lakes are not considered high risk areas.
- Heavy industrial areas can be considered marine environments.
- The recommended maintenance intervals provided here are for general guidance. Local environmental conditions may differ.



AVAILABLE COLOUR OPTIONS



Black (BE)



White (WE)



Silver (SE)



Bronze (BZE)



Charcoal (CH)



Natural (NA)



Stainless Steel (SS)



Bespoke Colours



NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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