



LOWLINE
GROUP

Enhancing architectural appearance and efficiency

OPERATIONS & MAINTENANCE MANUAL



CLEANING ALUMINIUM

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Issued to: Assisi Centre Incorporated
230 Rosanna Road
Rosanna Vic 3084
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Project: Assisi Centre
230 Rosanna Road
Rosanna Vic 3084

Product: Lowline 'Varsity Series'® Louvres in Colorbond® finish
Lowline 'Polaris Series'® Screens in Powder coated finish

Material Type and Finish:

- | | |
|-------------------------------------------------------------|------------------------------------------------------------|
| <input checked="" type="checkbox"/> Powder coated Aluminium | <input type="checkbox"/> Powder coated - Galvanised |
| <input type="checkbox"/> Anodised Aluminium | <input type="checkbox"/> Powder coated - Zincalume |
| <input checked="" type="checkbox"/> Colorbond® Finish | <input type="checkbox"/> Powder coated - Steel |
| <input type="checkbox"/> Acrylic corrugated sheeting blades | <input type="checkbox"/> Two-Pack Polyurethane - Aluminium |
| <input type="checkbox"/> Laminated glass blades | <input type="checkbox"/> Two-Pack Polyurethane - Steel |

Weatherability:

- ☒ This product is readily cleaned by normal cleaning action of wind and rain.
- ☐ A build up of leaves and other wind-blown matter can adversely affect the weatherproofing of this product.
- ☐ Build up of dust, grime and fallout from processes carried out in the area or in the building will cause deterioration of the coating.

Cleaning Methods:

- ☒ **Please read the following instructions regarding cleaning your product.**

Inspection:

- ☒ Rural and/or suburban environment - recommended cleaning every 6 months
- ☐ Industrial environment - recommended cleaning every month – no longer than 3 months
- ☐ Industrial environment - recommended cleaning every 3 months – no longer than 6 months
- ☐ Pool [chloride] environment – recommended cleaning every month – no longer than 3 months
- ☐ Coastal [salty] environment – recommended cleaning every month – no longer than 3 months

Repair:

Should components be damaged in any way, it may affect the integrity of the equipment - either its structural strength or its weatherproof resistance.

Always have the equipment inspected, repaired or replaced by Lowline



Issue Date: 17 December 2012 By: Vernon P. Wright
BSA Licence 710025

Sign:
for Lowline Group

CLEANING ALUMINIUM

The surface finish of aluminium can be spoiled by **improper care** and the purpose of this note is to summarise the methods of maintaining aluminium after proper erection on site. Usually this care is no more than periodic cleaning, on a similar basis to which the glass in the windows is cleaned, and it is often merely lack of appreciation of this factor which can spill the effects so proudly established in the first place.

ANODISING substantially enhances appearance and renders the surface more resistant to various forms of attack and facilitates cleaning and maintenance. Grime absorbs contaminated moisture like a sponge and holds it against the anodised surface; this permits the attack to proceed thereby damaging the film, which cannot be restored without removal.

Regular cleaning is desirable, the frequency depending on accessibility and the severity of the environment. In a **rural atmosphere** where grime deposition and pollution of the atmosphere are at a minimum, cleaning may not be needed more frequently than every **six months** in order to remove deposits and restore the appearance.

In **industrial** and **marine** environments more frequent cleaning, e.g. **monthly**, is necessary and the **maximum period** between cleanings should **never be more than three months**. Under the worst conditions involving grime deposition and atmospheric pollution by both sulphur compounds and chlorides, even more frequent cleaning is advisable if deterioration of the anodic film is to be prevented.

As a general rule, it could be assumed that with outdoor applications anodised components should be cleaned with the same frequency as windows, using the same materials and techniques.

POWDERCOATING is probably one of the most durable colour coatings available for a wide range of products and uses. However, to obtain the very best results in overall finish and in longevity, correct product handling and maintenance is essential.

As with many coated surfaces, regular maintenance will extend the life of the surface and retain its appearance. **Cleaning** should be conducted routinely at **three monthly intervals** and six months should be considered the longest interval.

In industrial or marine locations particular attention should be paid to regular maintenance due to the harsher atmosphere.

CLEANING PROCEDURES:

- Clean with a dilute solution of mild liquid detergent. G. James recommends *Kitten 'Glo-Wash'*, *Turtle Wax 'Zip Wash'* or *RE-PO 'Superwash'*. Should these products give less than the desired results *Turtle Wax 'Ice Polish'* or *RE-PO 'Cream Polish'* can be used as per the manufacturer's instructions. NOTE: Use only the above mentioned cleaning products. Do not use alternative products by the same or other manufacturers without written authorization from G. James.
- If using proprietary cleaners the maker's recommendation should be obtained and followed carefully.
- Avoid excessively hot solutions.
- Use a soft bristle brush. Do not use abrasive tools on the coating.
- After cleaning, rinse thoroughly with fresh water. If possible use a chamois or soft cloth to dry so as not to leave streaks.
- G. James recommends hand-clean and hand-rinse rather than using a hose.
- There should be no concentration of the cleaner at the bottom edges of the aluminium.
- Ensure that areas that are not normally exposed to rain are washed and rinsed also.
- Do not use strong solvent type cleaners. Where the use of solvent is required, such as cleaning paint spills, use nothing other than methylated spirits. Ensure that the contact time is as short as possible, and rinse the solvent cleaner thoroughly from the surface with copious amounts of drinking quality water. It is strongly recommended that a small test area be checked first, to ensure that no damage will occur to the whole area.

GRIME which causes deterioration cannot be prevented from settling on exposed surfaces. If cleaned reasonably frequently then the mildest methods of washing will produce satisfactory results. There are many ways to clean aluminium, from using plain water to harsh abrasives. The type of cleaning that should be used is governed by the finish, degree of soiling, and the size, shape and location of the surface to be cleaned.

The mildest method possible should be used, particularly for aluminium which has been anodised.

DO NOT USE:

- Abrasive materials, tools or anything that may scratch
- Strong acids or alkaline substances or other materials which can cause corrosion.
- Strong solvents including: thinners, petrol, diesel, turps or kerosene.
- Degreasers, pesticides, brand name lubricants or agents of unknown composition.
- Laundry or dish detergents, oven cleaners or other harmful agents.

- Agents on surfaces that are warmer than 25EC during cleaning.
- On significant areas, agents that have not been successfully used before.
- Do not allow build up against the finish of: debris, agents or moisture, to reside for any extended period of time or allow immersion in soil, water or concrete.

MAINTENANCE OF HARDWARE

Regular maintenance is required for all hardware, including any stainless steel components. In most environments maintenance is recommended every six (6) months and every three (3) months in coastal, pool and industrial environments.

The internal workings of locks, handles, catches etc. should be kept in good working order by applying a light spray of lubricant similar to WD40 or RP7 into the area(s) of any moving parts.

The external finish of all hardware must be kept clean by removing any harmful residue, especially salt spray, from the surface using a non-abrasive cleaning agent and wiped down with a soft cloth moistened with WD40 or RP7.

When maintaining either internal or external hardware, ensure that all finished surfaces (e.g. timber, aluminium, etc) in close proximity are well protected from exposure to any cleaning or lubricating agents.

All tracks and sills must be kept clear of dirt, debris and other matter which can cause damage to, and restrict the proper functioning of rollers, guides and dropbolts.

CLEANING GLASS

[TAKEN FROM "G. JAMES IS GLASS HANDBOOK"]

CLEANING

For cleaning purposes use a soft, clean grit-free cloth and water with a mild detergent. Thoroughly wash off any detergent residue with clean water. do not under any circumstances use any form of abrasive cleaner as this may cause damage to the glass. Do not allow any metal or hard parts of squeegees or other cleaning equipment to contact the glass surface. Metal scrapers should not be used. Special care should be taken when cleaning coated reflective surfaces. For stubborn stains contact the G. James Technical Advisory Service on 1800 452 637.

STAINING

Glass is generally resistant to chemical attack and other degradation. It is inert to most acids, except hydrofluoric and phosphoric.

Typical glass problems on buildings would be:

- Alkalis leaching from concrete, mortar, plaster and gravel onto glass can cause staining and etching.
- Hard water, high in calcium concentrates, which are allowed to continually run on the glass.
- Deterioration of labels and protective films when left on the glass for prolonged periods.
- Pitting of the glass, mainly due to weld splatter (in the form of black specks on the glass), improper sandblasting on site or wind blown debris.
- Abrasions to the glass surface by using harsh, powder based cleaning products.
- Scratches or spalling caused by the improper removal of plaster, paint, varnish or mortar splash.
- A white staining effect which occurs when condensation repeatedly forms and dries on the glass, which in turn can cause surface decomposition.
- Iridescence or the oil-stain image is a direct result of the wet-dry action of condensation or water on, or between the glass(es).

The only practical remedy for glass that is badly damaged by scratches, weld splatter, sandblasting, etching and even damaged edges is full replacement.