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Smart Architectural Aluminium

**Cleaning, Maintenance & Repair**  
Aluminium Windows, Doors and  
Architectural Products

July 2008

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**CLEANING, MAINTENANCE AND REPAIR PROCEDURE FOR ORGANIC  
PAINT COATINGS (ACRYLIC AND POLYESTER) ON ALUMINIUM AND PVC-U  
WINDOWS, DOORS AND ARCHITECTURAL PRODUCTS****INDEX****CLEANING AND MAINTENANCE**

ALUMINIUM	4
PVC-U	5

**REPAIR**

ALUMINIUM	5
PVC-U	6

<b>FABRICATION AND INSTALLATION</b>	6
-------------------------------------	---

<b>ORGANIC COATED ALUMINIUM</b>	7
---------------------------------	---

<b>REPLACING DAMAGED COMPONENTS</b>	8
-------------------------------------	---

<b>WINDOW HARDWARE MAINTENANCE</b>	8
------------------------------------	---

<b>DOOR HARDWARE MAINTENANCE</b>	8
----------------------------------	---

**DATE  
6/8/02****CLEANING, MAINTENANCE AND REPAIR****PAGE  
2**

**CLEANING, MAINTENANCE AND REPAIR PROCEDURE FOR ORGANIC  
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WINDOWS, DOORS AND ARCHITECTURAL PRODUCTS**

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In compiling these guidelines we would also draw your attention to a publication by the Council for Aluminium in Building, 191 Cirencester Road, Charlton Kings, Cheltenham, Gloucestershire GL53 8DF (Tel No: 01242 578278).

"Guidance in the handling, care, protection, fixing and maintenance of aluminium windows and doors."

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**DATE**  
**6/8/02**

**CLEANING, MAINTENANCE AND REPAIR**

**PAGE**  
**3**

## **CLEANING, MAINTENANCE AND REPAIR PROCEDURE FOR ORGANIC PAINT COATINGS (ACRYLIC AND POLYESTER) ON ALUMINIUM AND PVC-U WINDOWS, DOORS AND ARCHITECTURAL PRODUCTS**

### **1. CLEANING AND MAINTENANCE**

#### **(ALUMINIUM)**

- a) In areas within the direct influence zones of salt water, industrial chemical plants, blast furnaces or other aggressive emission sources, the window should be cleaned at least every three months. In a relatively cleaner environment every six months should be sufficient.

In carrying out regular maintenance outside, the internal surfaces are frequently neglected. After a period of time, grime and deposits from tobacco smoke, coal and oil fires, etc. can discolour the inside of the window frame and it is recommended that these should be cleaned at least once per year.

b) Procedure

- (i) Wash down with clean warm water containing a non-alkaline liquid detergent (in a concentration which can be handled safely with bare hands) using a non-abrasive cloth, sponge or soft bristle brush. This will remove grime, grease and any excess chalking. All ridges, grooves, joints and drainage channels where salt or other deposits can collect should be well washed out, thus preventing corrosion sites from occurring!

- (ii) Rinse thoroughly with clean water.

- (iii) Dry using a soft cloth or leather.

- c) Where a reduction in gloss is observed, chalking is evident or excessive staining has occurred, then an approved renovating cream may be carefully applied with a non-abrasive cloth.

Note: T-Cut or similar automotive paint restorer may be used provided it is not too abrasive!

Care must be taken not to abrade sharp corners of section or aris of beads too heavily where the paint film is normally thinner, and it should be remembered that this operation should not be carried out too frequently.

Polish with a soft cloth to restore gloss and colour uniformity

**DATE**  
**6/8/02**

**CLEANING, MAINTENANCE AND REPAIR**

**PAGE**  
**4**

## CLEANING, MAINTENANCE AND REPAIR PROCEDURE FOR ORGANIC PAINT COATINGS (ACRYLIC AND POLYESTER) ON ALUMINIUM AND PVC-U WINDOWS, DOORS AND ARCHITECTURAL PRODUCTS

- d) For extra protection a wax polish can be applied once or twice a year again polishing with a soft cloth to restore glass.

### (PVC-U)

PVC-U profile, whether white self finish or woodgrain laminated, requires minimal maintenance. Occasional cleaning with soap and warm water is all that is normally required.

The laminated woodgrain effect finish is resistant to normal household agents, e.g. ammonia water, petrol, alcoholic drinks (<45% vol alcohol), non-abrasive cleaners and water. It is not resistant to organic solvents, paint thinners and removers which is also applicable to white self finish material.

## 2. REPAIR

### (ALUMINIUM)

- a) Blisters and corrosion sites may originate from areas where mechanical damage or scratches have penetrated the paint coating through to the aluminium, or from cut bar or butt ends, mitres, drill holes or drainage slots, where the aluminium is unprotected (see part 3c).
- b) Procedure:
- (i) Use fine grade 120-360 grit abrasive paper to remove corrosion products and any non-adherent paint.
  - (ii) Wipe with white spirit or approved cleaning solvent.
  - (iii) Ensure surface is absolutely dry before applying a thin priming coat. Allow 20-30 minutes to 'flash off' using a fine brush.
  - (iv) With a fine brush again, touch in the damaged and primed area with an air drying paint.

**DATE**  
6/8/02

**CLEANING, MAINTENANCE AND REPAIR**

**PAGE**  
5

## CLEANING, MAINTENANCE AND REPAIR PROCEDURE FOR ORGANIC PAINT COATINGS (ACRYLIC AND POLYESTER) ON ALUMINIUM AND PVC-U WINDOWS, DOORS AND ARCHITECTURAL PRODUCTS

It should be recognised that the air drying paint will not possess the same weathering properties as the stoved organic coating, but nevertheless will give a reasonable amount of protection. Their use should of course be confined only to small areas of damage.

### (PVC-U)

In the event of an incident causing damage to the surface area of the profile then:-

- a) For white self finish profile, use 400 grade fine paper. Jif or similar household cleaner can be used to remove small scratches and dents, working on the damaged area using a circular motion until indent is removed. Finish polish with Jif and sisal brush.
- b) For wood grain laminated finish use suitable touch-up paint to camouflage scratch.

### 3. AT THE FABRICATION AND INSTALLATION STAGE

- a) Grease marks, dirt and mastic spillage may be removed using white spirit or an approved solvent which will not soften the paint film or adversely affect its weathering properties.
- b) Self adhesive tapes and clear lacquers must not be applied as irreparable damage, under certain conditions, can occur to the organic coating.
- c) It is recommended that all cut bar ends, mitres and butt joints, drainage slots and drill holes should be coated with an air drying paint system including a primer/corrosion inhibitor and a top coat and/or suitable gap sealant to provide protection against the initiation of corrosion sites where the aluminium is exposed. This protection is particularly important if the units are to be fitted in coastal or other aggressive environments.
- d) Fabricators and installers should take maximum care during assembly, transit and fitting not to damage the paint coating.

Note: Beware swarf on benches, end damage of assembled frames in transit or on site and the careless use of sharp ended screwdrivers or other tools for forcing 'snap-fit' beads into position!

**DATE**  
6/8/02

**CLEANING, MAINTENANCE AND REPAIR**

**PAGE**  
6

## CLEANING, MAINTENANCE AND REPAIR PROCEDURE FOR ORGANIC PAINT COATINGS (ACRYLIC AND POLYESTER) ON ALUMINIUM AND PVC-U WINDOWS, DOORS AND ARCHITECTURAL PRODUCTS

Note: Beware swarf on benches, end damage of assembled frames in transit or on site and the careless use of sharp ended screwdrivers or other tools for forcing 'snap-fit' beads into position!

If the paint film is unavoidably damaged and bare aluminium revealed, the damage must be repaired immediately using procedure 2b.

### 4. POINTS TO BEAR IN MIND WHEN SPECIFYING ORGANIC COATED ALUMINIUM

- a) No organic paint coating, whether polyester or acrylic (or indeed if the substrate is PVC-U) is 'maintenance free' and that especially when installing in coastal districts or areas with high industrial pollution, advice should be given at the time of installation regarding the frequency and nature of cleaning maintenance needed.
- b) Modern organic finishes which we apply to architectural aluminium are practically identical to the types used on motor vehicles and therefore require a similar degree of care and attention which people typically lavish on their car bodywork.

The frequency of cleaning relates directly to the decorative standard which the householder wishes to maintain and also the particular environment where the units are situated.

- c) All paints 'chalk' to some extent in service and a reduction in gloss level will occur. The original finish can be easily restored using the procedure in 1c.

**DATE**  
6/8/02

**CLEANING, MAINTENANCE AND REPAIR**

**PAGE**  
7



## **CLEANING, MAINTENANCE AND REPAIR PROCEDURE FOR ORGANIC PAINT COATINGS (ACRYLIC AND POLYESTER) ON ALUMINIUM AND PVC-U WINDOWS, DOORS AND ARCHITECTURAL PRODUCTS**

### **1. REPLACEMENT OF BROKEN GLASS**

Windows and Doors can be re-glazed and the gaskets and weatherstripping replaced using the materials supplied.

Any damage to the gasket or beads may necessitate replacement to retain the weather performance of the product. (Refer to Supplier)

### **2. REPLACEMENT OF DAMAGED COMPONENTS**

If damage occurs, the furniture and fittings can be readily replaced by releasing the fixing screws and changing the fitting. (Refer to Supplier)

### **3. WINDOW HARDWARE MAINTENANCE**

The friction stays and locking mechanisms should be lubricated periodically to minimise wear and to ensure smooth operation.

Care should be taken to avoid applying lubricant to the friction pads as this will impair their braking action. The resistance of the pads can be adjusted, if necessary, with the brass screws provided in each pad.

### **4. DOOR HARDWARE MAINTENANCE**

Hinges and locking mechanisms should be lubricated periodically to minimise wear and to ensure smooth operations.

**DATE**  
**6/8/02**

**CLEANING, MAINTENANCE AND REPAIR**

**PAGE**  
**8**





