Smart Systems Ltd FREEPOST BS3171

Arnolds Way Yatton North Somerset

4QN

**BS49** 

CLEANING MAINTENCE AND REPAIR PROCEDURES 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 chemicals plants, blast furnaces or other aggressive emission sources, the window should be cleaning 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 or from tobacco smoke, coal and oil fires, etc. can discolour the inside 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 non-alkaline liquid detergent (in concentration which can be handled safely with bare hands) using 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 nonabrasive cloth.

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

Care must be taken not to abrade sharp corners of sections 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
- (d) For extra protection a was polish can 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 wood grain 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 scatches 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

It should be recognised that the air drying paint will not posses 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

### (PVC-U)

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

small areas of damage.

(a) For a white finish profile, use 400 grade fine paper. Jif or similar household cleaner can be used to remove small scathes and dents, working on the damaged area using a circular motion until indent is moved. Finish polish with Jif and sisal brush.

(b) For wood grain laminated finish use suitable touch-up paint to camouflage scatch.

# 3. At the Fabrication and Installation Stage

- (a) Grease marks; dirt and mastic spillage may be removed using white spirt 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 sealent 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 a 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!

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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 instillation 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.

# 5. Replacement of Broken Glass

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

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

# 6. 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).

# 7. Window Hardware and 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.

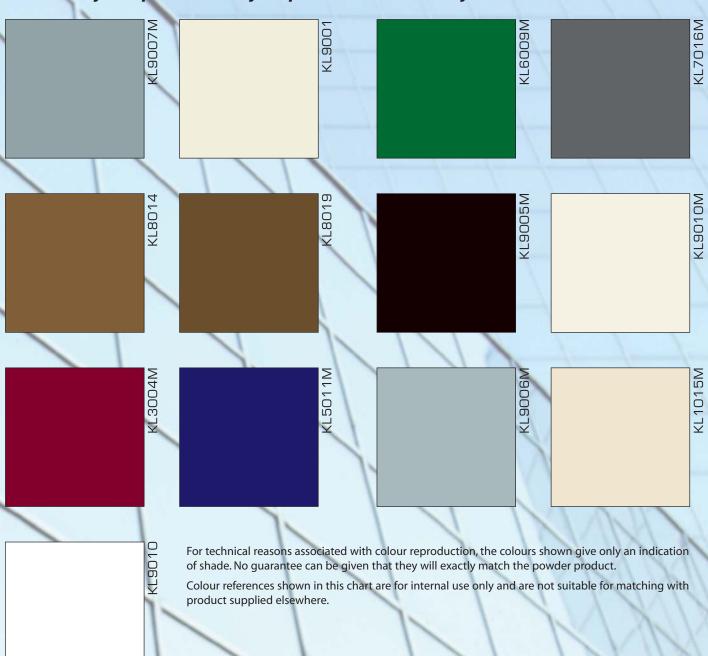
# 8. Doors Hardware and Maintenance

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

# Smart Systems Colour Guide architectural aluminium

Smart Systems "KL" range of colours shown below offers the opportunity for colour at extremely competitive rates - contact your supplier for full details.

Additionally our products may be powder coated in any standard RAL reference.



# **CERTIFICATE OF GUARANTEE**

# **Conditions of the guarantee**

This certificate covers the powder coating applied to the aluminium systems supplied by Smart Systems Ltd.

This guarantee covers the coated aluminium against the following faults:

- Peeling, powdering and blistering
- Corrosion except sure to bending or folding after the application of the paint
- Chalking, fading and loss of sheen out of the qualicoat regulation
- Filiform corrosion

# **Duration of guarantee: 25 YEARS**

# After care

The end user of this guarantee is responsible for the maintenance and cleaning of the product. (See Smart Systems Cleaning, Maintenance and Repair Manual)

If the end user is in one of the conditions to use this guarantee, Smart Systems shall search for the best solution to recover the work to it's normal state.

### **Eddie Robinson**

Managing Director

### **Smart Systems Ltd**



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### **GUARANTEE EXCLUSIONS**

- 1 Wilful, intentional or accidental damage.
- 2 damaged cause by war terrorist action or sabotage. Strikes, trade dispute, rebellion, civil disturbance, requisitioning, government or other authority's regulations. Direct or indirect causes of blowing up, a temperature of more than 70 deg.c, radio activity, poison, explosive or dangerous nuclear states.
- 3 Damage caused by poor workmanship by not following normal working practices.
- 4 Damage caused by changes made to the profiles or materials afterwards.
- 5 All damaging on the coating due to unusual use and normal ageing caused by mechanical contact large changes and thermal shocks rubbing of items or objects damaging not affecting the anaesthetic appearance of the work poor water drainage of the concept aggressive and polluted environment.
- 6 Indirect loss or tort or delicate or otherwise for loss whether consequential or otherwise howsoever caused.
- 7 Damage due to cleaning or attach of the materials due to non-neutral chemicals.

- 8 damage due to the use of the products die to installation they were not designed or intended to be used.
- 9 slowing down or delaying the repair of preventative repair due to testing or inspection.
- 10 The material coated is sited within direct influence of zones of salt water (within 500 metres of high tide line) acid or industrial or other aggressive emission sources which are known or believed to be damaging or corrosive to thermosetting powder coating.
- 11 The whole or partial replacement of the profiles or parts of it.
- 12 Direct or indirect damage due to deformation of the materials after the coating.
- 13 Damage due to one or more electric current due to the use of alloys or materials, which are not compatible with aluminium, copper, lead, zinc, etc.
- 14 Less than 5% of the exposed external surfaces is affected.
- 15 Failure to follow Cleaning, maintenance and repair procedures.

# HAZARDOUS ENVIRONMENT PROJECT GUARANTEE

Request on Aluminium coated to BS6496 1984

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To: Smart Systems Ltd
Arnolds Way, Yatton, North Somerset BS49 4QN
Fax Number: 01934 835 169

Date:	Name:					
Project Name:		Projec	Project Address:			
Project Reference:						
Environment Marine			ion map to b	·		
Environment: Marine Type of Pollution:		ndustrial	entration of	Pollutant:		
Type of Pollution:		Conce	entration or	rollutarit.		
Window Frames	Doors	Cladding	Other:			
Distance from Pollutant	: Prevail	ing Wind:	Heigl	nt of Buildir	ng:	
Protection: Do other build	lings or the	landscape pro	tect the huildin	a or is it fully a	vnos	
Trotection. Do other build	ings or the	шпазсаре рго	tect the bundin	g or is it rully e	хроз	
Product Reference:			Inte	erpon D36/	'D5	
Colour:		Effect:	:			
Gloss Level: Matt	Satin	Gloss	Other:			
Guarantee Period Req	uired:					
Architect:		Fabrio	Fabricator:			
Signed:			Date:			

Please include a map or plan of the final location marking any known hazzard