

## CARE & MAINTENANCE OF UNEX BALUSTRADES

It is the fabricators responsibility to ensure that a copy of these Care and Maintenance Instructions is made available to every purchaser of UNEX Balustrades. It is important that every building owner observes these recommendations to obtain the durability required in the NZ Building Code.

### 1. MAINTENANCE OF ALUMINIUM BALUSTRADES

Cleaning is necessary if the fine finish of powdercoated and anodized aluminium is to be preserved. Deterioration of the coating occurs mainly as a result of grime deposition and attack by contaminated moisture which in a coastal environment contains salt and sulfur compounds. Deposited grime and contaminations absorb moisture like a sponge and holds it against the powdercoated and anodized surfaces. This permits attack to proceed thereby damaging the coating which cannot be restored.

- Safety barriers shall be maintained in a structurally sound condition and, where applicable, self-closing gates and other components required for the protection of children shall be kept operable. Defects should be remedied immediately once they are apparent.
- Ensure drainage holes in posts and rails are kept clear, on 6 months frequency.
- While surface finishes do not last forever, observance of these instructions will maintain their appearance and significantly extend their useful life.
- Powdercoated surfaces will lose some gloss with time. Where desired, powdercoated gloss may be enhanced with 'Dulux Gloss Up', used in accordance with the manufacturer's instructions.

#### Always protect the balustrades from contact with:

- Wet cement or plaster, household cleaners including bleach, paint splashes, chemicals, solvents, stains and fertilisers are possibly harmful to the surface finish. If contact does occur, remove the contaminant immediately and wash as described below.
- Copper, brass, lead, mild steel, CCA treated timber, cement or concrete less than 1 month old, and water which has contacted any of these substances.

### GUIDELINES FOR ALUMINIUM BALUSTRADE CLEANING

It is recommended most residential balustrades in mild conditions or interior installations be cleaned at least every once a year. In areas where pollutants are common such as industrial or geothermal areas, and for all sites within 1 km from the sea or in any sea spray zone identified by Section 4.2 of NZS 3604:1999, cleaning must be carried out more frequently as required, but not less than every three months.

### PROCEDURE FOR ALUMINIUM BALUSTRADE CLEANING

- Gently remove loose deposits with a wet sponge. Do not dry dust, or the surfaces will be scratched. Remove any moss growth, and ensure that all drain holes are unblocked, particularly those at the base of the posts and underside of lower rails.
- Using a soft brush and a mild household detergent in warm fresh water, clean the surface to remove any dust, salt, or other deposits. Pay particular attention to any areas not washed naturally by the rain. In the instance of stubborn stains, use ONLY Isopropyl alcohol (IPA) or methylated spirits to help remove these.
- Always rinse well after cleaning with fresh water so that the contact time of the cleaning solution is kept to a minimum. Hosing must be avoided under all circumstances. Rinse with a chamois, or a soft cloth.

## CARE & MAINTENANCE OF UNEX BALUSTRADES - (CONT'D)

### IMPORTANT NOTES

- Never use scrapers, emery paper, sandpaper, steel wool or other highly abrasive materials on any aluminium, nor acid or alkaline cleaners, or any chemical cleaners, as they can damage the anodised or powder coated finish.
- Be careful with emulsion cleaners as they too can attack anodised coatings – use only consultation with companies who are specialists in anodised aluminium. Solvents, household cleaners, bleaches, and abrasive cleaners are possibly harmful to the surface finish and must not be used.
- All coated aluminium surfaces should avoid contact with acids, alkalis, mortar based products and solvents.
- Sunscreen can leave permanent marks on aluminium. Use gloves when handling, and, if affected, wash the sunscreen off immediately with warm, soapy water.

## 2. MAINTENANCE OF GLASS

Glass needs to be periodically washed to remove visible dirt and to prevent accumulations of dirt from bonding to or attacking the surface. Glass should be washed frequently as is needed to keep its appearance acceptable. In some locations, and for some building owners, this cleaning will be more frequent than for others.

### GUIDELINES FOR GLASS CLEANING

- Glass should be cleaned using only cleaning materials which are free of grit and debris (to avoid scratching and marking of the glass surface).
- Only detergents and cleaning solutions which are recommended for cleaning glass should be used. Mild detergents are preferable.
- Extra care is necessary where high performance and coated glass products are installed as the coated surface can be susceptible to stains and scratches.
- Hand cleaning of the glass surface to visibly remove accumulated dust or fingerprints can be accomplished using a number of different glass cleaning products. Recommended cleaning product is Mr Muscle® Surface and Glass. For screen printed glass, use only neutral cleaning products on the printed surface. The use of ammonia-base and alcohol-base glass cleaners are not recommended because these products tend to leave visible streaks. The exterior surface of the glass is not coated so cleaning can be undertaken in the same fashion as ordinary glass.
- Glass with a low E or reflective coating need to be treated with special care when cleaning to ensure the coating is protected and not damaged once cleaned. Do not use razor blades, steel wool or other metallic objects on the coated surface.

### PROCEDURE FOR GLASS CLEANING

- While cleaning ensure jewellery and watches are removed and gloves should be worn to avoid scratching the surface of the glass. Scratches that occur from foreign objects will be permanent and are not repairable.
- Flood the glass surface with water and the spray-on cleaning solution or with a cloth saturated with the cleaning solution. Be generous with the amount of solution applied.
- Scrub the wet surface with a clean, lint free towel or cloth.

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- Wipe to dry with a clean, lint free towel or cloth. The use of a squeegee is not recommended and could increase the risk of damage to glass and as such should be avoided if possible.
- To prevent streaking, stop wiping when the glass is almost dry and there is a uniform residue of moisture left on the glass surface. The residue will quickly evaporate leaving a clean surface.
- Extra care is necessary where high performance and coated glass products are installed as the coated surface can be susceptible to stains and scratches.

### IMPORTANT NOTES

- Do not use cleaners which contain Hydrofluoric or Phosphoric acid as they are corrosive to the glass surface.
- Avoid cleaning heat absorbing tinted glass in direct sunlight, as the glass will be excessively hot for optimum cleaning.
- Do not allow cleaning solutions to contact the edges of laminated glass, Insulating Glass Units or Mirrors.
- Do not store or place other material in contact with the glass. (This can damage the glass or create a heat trap leading to thermal breakage).
- Abrasive cleaners, powder-based cleaners, scouring pads or other harsh materials should not be used to clean windows or other glass products.
- Avoid causing extreme temperature changes to the glass as this may lead to thermal fracture of the glass, i.e. do not splash hot water on cold glass or freezing water on hot glass.
- Some tapes or adhesives can stain or damage glass surfaces. Avoid using such materials unless they are known to be easily removed.
- It is suggested that professional cleaners consult with their suppliers as to the suitability of available cleaning equipment, materials and methods before attempting to clean toughened glass.

### ABOUT THIS ADVICE

This information is offered as a general guide only and specific advice should always be sought from a reputable glazier or professional window cleaner before undertaking any cleaning. This guidance does not preclude the use of other methods, materials or equipment. However, the user should undertake careful evaluation and make suitable enquiries of the suitability of alternative methods, materials or equipment, before using them.

## CARE & MAINTENANCE OF UNEX BALUSTRADES - (CONT'D)

### MAINTENANCE OF STAINLESS STEEL

Stainless steels are highly corrosion resistant—however, stainless steel applications can still remain at risk to surface damage. Oxidation, corrosion, rusting, or staining can occur over the long-term in harsh environments without routine cleaning and maintenance. Repeat mechanical damage also contributes to a faster degradation of the metal.

All stainless steels contain at least 10.5% chromium by weight. It is this chromium content that creates a shield called the passive layer, which protects stainless steel from corrosion—unlike other steels. The higher the chromium content, the greater the corrosion resistance. Stainless steel rusting occurs when the passive layer is damaged and there is not enough chromium for it to reform.

### GUIDELINES FOR STAINLESS STEEL

Stainless steel must be cleaned regularly to preserve the metal's integrity and maintain a pristine appearance. With proper care, and by selecting an appropriate grade, stainless steel can be saved from corrosion. When stainless steel maintenance is neglected, corrosive substances can accumulate on vulnerable surfaces.

It is recommended most residential balustrades in mild conditions or interior installations be cleaned at least every 6 months. In areas where pollutants are common such as industrial or geothermal areas, and for all sites within 1 km from the sea or in any sea spray zone cleaning must be carried out more frequently as required, but not more than every three months.

### PROCEDURE FOR STAINLESS STEEL CLEANING

- a) Use a soft nylon brush to remove accumulated dirt.
- b) Wash with warm water, mild soap or detergent.
- c) Follow with a clean-water rinse.
- d) Wipe dry with a soft cloth, disposable wipe, or air blower.

### PROCEDURE FOR STUBBORN DIRT AND STAINS

- e) Use a soft nylon brush to remove accumulated dirt.
- f) Use non-scratching abrasion powders such as typical household cleaners.
- g) For more aggressive cleaning a small amount of vinegar can be added to the powder.
- h) These can be used with warm water, soft bristle brushes, sponges, or clean cloths.
- i) Follow with a clean-water rinse.
- j) Wipe dry with a soft cloth, disposable wipe, or air blower.

### IMPORTANT NOTES

- Avoid any contact with carbon steels or iron.
- Use cleaners showing "Suitable for Stainless Steel"
- Do not weld, cut, drill, or grind carbon steel near stainless steel.
- Avoid contact with concrete detergents and chloride solutions.
- Do not use steel wool or other abrasive scrubbing pads.
- Never use chloride cleaners, abrasive cleaners, all-purpose cleaners, or chloride bleach cleaning products on stainless steel.