

OPERATIONS AND MAINTENANCE MANUAL

PROJECT:	Central Village Stage 3 348 Water Street Fortitude Valley, QLD
CLIENT:	PBS Building (Qld) Pty Ltd ABN 18 114 856 674 QBSA Licence No. 1079391
JOB NUMBER:	09/279

SECTION 3

PREVENTATIVE MAINTENANCE

3.1 Care & Maintenance of Glass – General

Cleaning of Glass

This information is offered as a general guide only. Specific advice on the cleaning of glass should always be sought from a reputable glazier or professional window cleaner before any glass cleaning is undertaken.

Professional Cleaners

Professional glass cleaners have significant experience and access to equipment, materials and methods which the general public may not. As professional glass cleaners are acknowledged experts in the cleaning of glass, the information on this page is general advice only for the professional glass cleaner to consider as part of the development of their own cleaning processes.

Instructions to All Trades and Individuals

Always follow manufacturer's installation and cleaning instructions. It is recommended that glass be protected from contamination caused by building materials and methods during construction as this will greatly simplify the glass cleaning task at the end of the project. If the glass is not protected during construction then the glass and frames should be cleaned frequently during construction.

Construction dust, leachate from concrete and rusting from steel can contribute to the formation of mild chemicals, which may stain or otherwise damage the glass.

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 reflective glass is installed. The coated surface can be susceptible to stains and scratches and therefore requires vigilance during the full construction process.

Temporary screens should be installed if welding, sandblasting, floor sanding, cuffing or other potentially damaging construction practices takes place near the glass.

Glass installations which are adjacent to concrete (e.g. concrete slab floors) require extra care and cleaning due to the abrasive nature of concrete dust.

All tradesmen should be advised to be aware of damaging glass and windows and to leave in place any materials protecting the window or glass.

Toughened Glass

The cleaning of toughened glass requires special care. The glass surface opposite the standards compliance stamp may, as a consequence of the manufacturing process, have 'pickup' on the surface. 'Pickup' is a deposit of very small particles of glass which are fused to the glass surface. A cleaning method which does not dislodge these particles should be employed otherwise scratching of the glass surface may result. Blades or scrapers have been known to dislodge 'pickup' from the glass surface. Only a soft cloth should be used. It is suggested that professional cleaners consult with their suppliers as to the suitability of available cleaning equipment, materials and methods.

What Not to Do

Do not use cleaners which contain Hydrofluoric or Phosphoric acid as they are corrosive to the glass surface.

Do not clean the glass when the glass is hot or in direct sunlight.

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.

If Damage Occurs

If glass is damaged or broken on-site ensure that experienced glaziers are engaged to rectify the situation. Glass can be a safety hazard if not handled properly.

Note to Painters

Paint spots have been traditionally removed using a sharp razor blade. The use of a blade can in some cases cause damage to the glass. As an alternative, investigate solvents or graffiti removal materials, ensuring that they will not damage the glass. If a blade or scraper is used then the risk of damage can be reduced by using a scraper which has a clean edge and is held at an angle of 30 degrees to the glass. Consult the supplier of the blade or scraper as to how it is best used to clean glass. However, surface coated, modified or tinted glass requires special care. Seek cleaning advice from your local glass merchant.

Cleaning Low E and Surface Coated Glass

These glass products have a very thin coating on the interior glass surface. It is this hard and durable coating which gives these products improved thermal insulation and solar control performance compared to ordinary clear glass. The coated surface of the glass does clean differently to ordinary glass and these guidelines are recommended for the best hand cleaning results.

Routine Cleaning

Hand cleaning of the coated (interior) surface to remove accumulated dust or fingerprints can be accomplished using a number of different glass cleaning products. The exterior surface of the glass is not coated so can be cleaned in the same fashion as ordinary glass.

Recommended Routine Cleaning Products

- Windex® Glass & Surface, produced by SC Johnson & Son, Pty Ltd
- CRL® Glass Cleaner, produced by C R Laurence Australia, Pty Ltd
- GHS® Glass Cleaner, produced by Glaziers Hardware Supplies
- A mixture of: one part vinegar - ten parts clean water.

In addition to the above products, commercially available vinegar-based glass cleaners have generally demonstrated an ability to provide a clean, streak free glass surface. Viridian does not recommend the use of ammonia-base and alcohol-base glass cleaners because these products tend to leave visible streaks.

Routine Cleaning Procedure

- Flood the glass surface with the spray-on cleaning solution or with a cloth saturated with the cleaning solution. Be generous with the amount of solution applied.
- Scrub the wetted surface with a clean, lint free towel or cloth.
- Wipe dry with a dry, clean, lint free towel or cloth. Do not use a squeegee on the coated (interior) surface.
- To prevent streaking, stop wiping when the glass is almost dry and there is a uniform film of moisture left on the glass surface. The film will quickly evaporate leaving a clean surface.

Spot Cleaning

Occasionally spot cleaning may be required to remove stubborn dirt or foreign materials which adhere to the surface. Spot cleaning products work to remove markings from grease, oil, tape adhesive, and crayons or other waxy materials as well as paint and rub-off marks from plastics.

Recommended Spot Cleaning Products

- Acetone (solvent available from hardware store)

Spot Cleaning Procedure

- Apply a small quantity of the cleaner listed above to a clean, wet cloth or towel.
- Rub on areas of glass needing spot cleaning.
- Wipe clean using a dry, clean, lint free towel or cloth followed by a routine cleaning procedure.

Specialised Cleaning

Do not use razor blades, steel wool or other metallic objects on the coated surface. If metallic objects contact the coated surface, a thin layer of metal removed from the object may be deposited onto the surface which results in a discoloured stain which is difficult to remove using normal cleaning procedures.

Recommended Specialised Cleaning Products

- Hydrochloric Acid (please ref to manufactures Material Safety Data Sheet)

Specialised Cleaning Procedure

- Carefully follow the chemical manufacturer's safety instructions.
- Apply a small quantity of the specialised cleaning product listed above to a wet, clean cloth or towel. A cotton bud may be used for thin line type marks.
- Rub on areas of glass needing cleaning.
- Wipe clean using a dry, clean, lint free towel or cloth followed by a routine cleaning procedure.
- Ensure that the cleaner does not come into contact with framing materials.

Care of Mirrors

Mirrors require special care in cleaning. To clean mirrors, simply wipe over the surface with a few drops of methylated spirits on a damp cloth. Polish surface dry with a lint free cloth. Some proprietary glass cleaners, if used to excess, can cause damage to the silvering as can excessive amounts of water. Make certain when cleaning the face of the mirror that there is no contact with the silver backing, particularly at the edge of the glass and be careful to keep any moisture away from the paint backing of the mirror. Do everything possible to ensure that the cleaning cloths used are free of any abrasives.

Care of Windows with Opaque Film

(Window W211 in Tower 2, Levels 2 through 12 inclusive, between bedroom and bathroom)

The 3M opaque film applied to the above-noted windows is of the highest quality and made from durable, hard-wearing materials. To clean these windows, simply wipe over the surface with a soft cloth dampened with a mild detergent such as baby shampoo. Polish the surface dry with a lint free cloth. Ensure that any cleaning cloths and/or pads are free of abrasives.

About This Cleaning 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.

Whilst Total Concept Group has made every effort to ensure the accuracy and effectiveness of this information, Total Concept Group makes no representation as to the accuracy or effectiveness of the information and takes no responsibility for any loss, damage or injury which may be caused as a direct or indirect result of the use of this information.

The information contained in this bulletin is offered for assistance in the care and maintenance of flat glass products, but **IT DOES NOT CONSTITUTE A WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE**. Actual performance may vary in particular applications.

3.2 Care & Maintenance of Aluminium – General

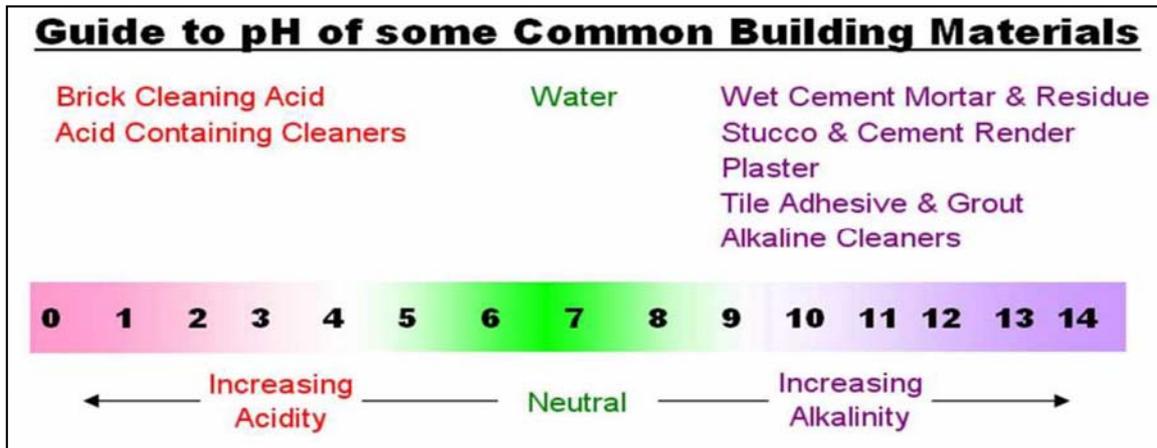
All metals are susceptible to a natural process known as corrosion. Both natural and manmade environments help reduce metals to their natural form, though the extent at which this occurs can vary considerably. In the case of aluminium, this natural form is aluminium oxide. Aluminium and its alloys generally are more corrosion resistant compared to others. The moment aluminium is exposed to oxygen in air; a very thin, inert and transparent native oxide layer naturally forms and gives aluminium good corrosion resistance. Surface treatments such as anodising and powder coating are finishes designed to further improve upon this property. Corrosion resistance, coupled with their mechanical properties, give Aluminium and its alloys their privileged use in many diverse applications and constructions.

Powder-coated and Anodised Aluminium

Powder-coat, once oven cured, becomes a solid and tough coating which adheres to the surface of properly pre-treated Aluminium. Powder coatings can be made in a multitude of colours, with various lustres, textures and special effects. The great range of colour options, make powder coating a versatile and popular choice. Aluminium anodised finishes, result in the controlled formation of an oxide layer which is much harder, more durable and about a thousand times thicker than the thin oxide layer naturally formed. It has excellent tolerance in coastal environments and its appearance proves popular in architecturally designed features as well as window and door suites. Both anodising and powder coating provide finished items with decorative value, as well as a level of protection from their environment. However, as with other types of metal, certain conditions and environments can render aluminium aesthetically unacceptable, even once Powder-coated or Anodised. It is therefore prudent to provide precaution and care for finished aluminium articles and components. Some of these precautions and care measures are listed below.

Avoid materials that can harm aluminium

Aluminium and its alloys are inherently corrosion resistant to materials in the pH range of 4 – 8.5. Strong alkaline and acid substances as well as abrasive materials can degrade and attack this oxide layer. Consideration also needs to be made for higher temperatures, stronger concentrations and longer contact times, as these may significantly accelerate the rate of any chemical action. Historically, one of the times of greater risk tends to occur upon building sites where materials that are highly alkaline or highly acidic come in contact with either bare or anodised aluminium. In order to prevent the risk of chemical attack which can lead to staining and discoloration, such substances should be prevented from contact with aluminium. The following are a few examples of substances which are highly alkaline or highly acidic.



Preventative Care

“It is important to prevent the attack of anodic oxidation coatings by corrosive agents such as contaminated moisture, condensates, cement and plaster splashes.” (Ref. AS1231-2000; Appendix D - Handling and Temporary protection during transportation and installation)

To avoid and minimise risks, it is recommended that aluminium surfaces are protected from attack via:

- As late-a-stage as possible Installation in order to minimise the possibility of on-site damage
- The application of a suitable protective barrier (e.g. sheet film, tape or strippable coatings) prior to delivery on site, and re-application of protective barriers as soon as possible after installation.
- Note: the use of brand name or generic lubricants, oils, petrochemical agents, etc. are not effective as protective barriers against materials that can harm aluminium.

Immediate Clean

Depending on temperature and concentration, strong alkaline and strong acid materials can attack and leave stains on aluminium within minutes of contact time! So it is vitally important that measures be taken to prevent the risk of this occurring. If for some reason, accidental splashing or spattering of foreign materials or their run-offs does occur, the Aluminium surface should be:

- Immediately wiped clean
- Rinse thoroughly with copious amounts of clean water, especially in cracks and crevices.

Regular Cleaning Maintenance

Just as you might provide regular care in maintaining the appearance of your motor vehicle, similarly, it is prudent to provide regular care in maintaining the decorative appearance of your powder coated or anodised finish. Build up of soils and other grime can hold moisture to the coated surface, and this is detrimental to powder coatings and anodised finishes. This build up can facilitate a corrosive condition which may lead to damage of the coating, particularly in a coastal or salt air environment.

Powder and Anodic coatings should be cleaned and maintained in accordance with their relative standards. (AS1231-2000 for anodising and AS3715-2002 for Powder-Coatings. Other references are appended at the end of this document.)

Essentially these recommendations within these standards include:

1. Regularly* washing the finish with warm water containing a pH neutral; wetting agent or detergent.
 2. Use a non-abrasive fibre brush or sponge
 3. Thoroughly rinse with copious amounts of clean water immediately after every cleaning process
- The above should be carried out during cooler temperatures and preferably in shade.
 - After cleaning, the anodised aluminium may be treated with a good quality wax polish (*AS1231-2000, App.C*)
 - However, if heavy soiling does occur, more regular cleaning is recommended.

Environment	*Minimum regular clean and check Interval
Non-hazardous:	12 months
Tropical:	9 months
Swimming and Leisure Pools:	6 months
Marine:	3 months
Industrial:	3 months
Hazardous:	1 month

Stubborn Residue

For the cleaning of greasy, oily, sooty substances or adhesive residue, the Powder coat suppliers suggest the use of White-spirits or Isopropyl alcohol in combination with using a soft cloth and gentle wiping. Nothing stronger is permitted for use. It is also suggested that a small non-visible area be tested initially to ensure that no colour change or damage will occur.

Don't Do's

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 25°C 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.

Note

Details contained herewith do not constitute specific advice, merely they are provided as a matter of courtesy and as general information only. You should seek your specialist's advice, to ensure that any information or suggestion meet your specific requirements. Reference should be made to the respective standards for the finish concerned as well as the Care and Maintenance Instructions on the website of Total Concept Group www.totalconceptgroup.com.au.

Latest releases of Australian Standards are available for purchase via the following website;

www.standards.com.au

Reference

Further instructions for maintenance and cleaning are available from, among others, the:

Australian Standard (AS) Australia, (AS 1231-2000, App. C, Maintenance of Anodised Aluminium)

Australian Standard (AS) Australia, (AS 3715-2002, App. C, Maintenance and repair of Powder-Coated Aluminium)

3.3 Care & Maintenance of Locks & Hardware – General

Routine Inspections and Cleaning

It is recommended that inspections and cleaning be done routinely – at least annually. A shorter interval should be used in marine or other corrosive environments and in areas prone to atmospheric fallout.

- The complete window or door should be inspected regularly to ensure that it is still in good working order. Such things as faulty hinges, warped windows and doors, and or distorted frames can put excessive load on other components reducing their operating life.
- Dirt, grime and airborne salt deposits are often capable of causing damage to the product's surfaces and mechanism, including the cylinder barrel, and must be regularly removed.

Cleaning Procedures

- a) Cleaning should be done with a dilute solution of a mild liquid detergent in warm water. Avoid excessively hot solutions.
- b) Use a soft bristle brush or similar to clean the surface. Do not use abrasive tools.
- c) After cleaning, rinse surfaces thoroughly with fresh water.
- d) Do not use strong solvent type cleaners on surfaces. Where it is necessary to remove materials from the surface (such as adhesives and a solvent is necessary) the weakest possible solvent should be used. The only solvents recommended are methylated spirits, white spirits or Isopropanol. Ensure the contact time for the solvent is kept to a minimum and that the solvent is thoroughly rinsed from the surface. A small test area should be checked prior to solvent cleaning to ensure that no damage to the film or colour change will occur.
- e) Where more aggressive cleaning is required, a very mild abrasive such as a high quality automotive cream polish, used in accordance with the manufacturer's instructions, may be necessary. The use of strongly abrasive compounds such as cutting compounds is not recommended.
- f) The use of bore water for cleaning is not recommended due to its mineral content, as it can bring about staining of the coating and may instigate long term coating failure.
- g) Ensure cleaning fluids do not penetrate into the lock or cylinder.

The use of products with soft finishes, such as gold plate, lacquered brass or chrome plate, need special care. Dirt or other contaminants must not be allowed to build up on the surface, as these will readily discolour and impair the surface.

Some change in colour, gloss or chalking may be expected dependant on exposure.

Key cylinders should be lubricated at least once a year or when there are signs of roughness when inserting or retracting the key. Remove any dirt, grime and salt deposits on and around the end of the cylinder barrel, and apply a small amount of powdered graphite to the key blade and insert the key into the lock barrel to maintain a smooth action. Twin cylinders should only be lubricated with 'Rivolta' lubricant which is available from your local locksmith.

Exposed mechanisms and parts should be cleaned with a non-metallic brush. Apply a small amount of preferably Teflon based lubricant or alternatively light sewing machine 5W mineral oil to lubricate moving parts and prevent corrosion of exposed metal surfaces. Be careful not to apply an excessive amount of lubricate as this will have a detrimental effect of adhering dust to these surfaces, potentially reducing their life.

3.4 Care & Maintenance of Stainless Steel – General

Background

The attractive and hygienic surface appearance of stainless steel products cannot be regarded as completely maintenance free. **All grades and finishes of stainless steel may in fact stain, discolour (Tea Staining) or attain an adhering layer of grime in normal service.** To achieve maximum corrosion resistance the surface of the stainless steel must be kept clean. Provided the grade, condition and surface finish were correctly selected for the particular service environment, fabrication and installation procedures were correct and that cleaning schedules are carried out regularly, good performance and long life will be achieved. Frequency and cost of cleaning of stainless steel is lower than for many other materials and this will often out-weigh higher acquisition costs.

Why Maintenance is Necessary

Surface contamination and the formation of deposits are critical factors which may lead to drastically reduced life. These contaminants may be minute particles of iron or rust from other non-stainless steels used in nearby construction and not subsequently removed. Industrial, commercial and even domestic and naturally occurring atmospheric conditions can result in deposits which can be quite corrosive. An example is salt deposits from marine conditions.

Working environments can also create more aggressive conditions, such as the warm, high humidity atmosphere above indoor swimming pools. These environments can increase the speed of corrosion and therefore require more frequent maintenance. Modern processes use many cleaners, sterilisers and bleaches for hygienic purposes. All these propriety solutions, when used in accordance with their makers instructions are safe, but if used incorrectly (eg. Warm or concentrated) can cause discolouration and corrosion on the surface of stainless steels. Strong acid solutions (eg. Hydrochloric acid or “spirits of salts”) are sometimes used to clean masonry and tiling of buildings but they should never be permitted to come into contact with metals, including stainless steel. If this should happen the acid solution must be removed immediately by copious water flushing.

On Going Maintenance

Advice is often sought concerning the frequency of cleaning of products made of stainless steel, and the answer is quite simply “clean the metal when it is dirty in order to restore its original appearance”. This may vary from once to four times a year for external applications or it may be once a day for an item in hygienic or aggressive situations. In many applications the cleaning frequency is after each use.

Cleaning Methods

Stainless steel is easy to clean. Washing with soap or a mild detergent and warm water followed by a clean water rinse is usually quite adequate for domestic and architectural equipment. An enhanced appearance will be achieved if the cleaned surface is finally wiped dry. Specific methods of cleaning are as in table 1.

Sections below give passivation treatments for removal of free iron and other contamination resulting from handling, fabrication, or exposure to contaminated atmospheres, and pickling treatments for removal of high temperature scale from heat treatment or welding operations.

Passivation Treatments:

- Grades with at least 16% chromium (except free machining grade such as 303), 20-50% nitric acid, at room temperature to 40°C for 30-60 minutes.
- Grades with less than 16% chromium (except free machining grades such as 416), 20-50% nitric acid, at room temperature to 40°C for 60 minutes.
- Free machining grades such as 303, 416 and 430F, 20-50% nitric acid + 2-6% sodium dichromate, at room temperature to 50°C for 25-40 minutes.

Pickling Treatments

- All stainless steels (except free machining grades), 8-11% sulphuric acid, at 65 to 80°C for 5-45 minutes.
- Grades with at least 16% chromium (except free machining grades), 15-25% nitric acid + 1-8% hydrofluoric acid, at 20 - 60°C for 5-30 minutes.
- Free machining grades and grades with less than 16% chromium such as 303, 410 and 416, 10-15% nitric acid + 0.5-1.5% hydrofluoric acid, at 20 to 60°C for 5-30 minutes.

“Pickling Paste” is a commercial product of hydrofluoric and nitric acids in a thickener – this is useful for pickling welds and spot contamination, even on vertical and overhanging surfaces.

Table 1. Methods of Cleaning Stainless Steel

Contamination	Product	Procedure
Routine Cleaning. All finishes.	Soap or mild detergent and water (preferably warm).	Sponge, rinse with clean water, wipe dry if necessary. Follow polish lines.
Fingerprints. All finishes.	Soap and warm water or organic solvent (eg. acetone, alcohol, methylated spirits).	Rinse with clean water and wipe dry. Follow polish lines.
Stubborn Stains and Discolouration.	Mild cleaning solutions, eg. Jiff, speciality stainless steel cleaners.	Use rag, sponge or fibre brush (soft nylon or natural bristle. An old toothbrush can be useful). Rinse well with clean

All finishes.		water and wipe dry. Follow polish lines.
Lime Deposits from Hard Water.	Solution of one part vinegar to three parts water.	Soak in solution then brush to loosen. Rinse well with clean water.
Oil or Grease Marks. All finishes.	Organic solvents (eg. acetone, alcohol, methylated spirits, proprietary "safety solvents"). Baked-on grease can be softened beforehand with ammonia.	Clean after with soap and water, rinse with clean water and dry. Follow polish lines.
Rust and other Corrosion Products. Embedded or Adhering "Free Iron".	Rust stains can be removed by adding one part of nitric acid to nine parts of warm water. Leave for 30 to 60 minutes, then wash off with plenty of water, and flush any drains thoroughly. See also previous section on Passivating.	Rinse well with clean water. Wear rubber gloves, mix the solution in a glass container, and be very careful with the acid. (see Precautions for acid cleaners).
Routine Cleaning of Boat Fittings.	Frequent washing down with fresh water.	Washing is recommended after each time the boat is used in salt water.
Cooking Pot Boiled Dry.	Remove burnt food by soaking in hot water with detergent, baking soda or ammonia.	Afterwards clean and polish, with a mild abrasive if necessary. See comments re steel wool.
Dark Oxide From Welding or Heat Treatment.	"Pickling Paste" or pickling solutions given on previous page.	Must be carefully rinsed, and use care in handling (see Precautions for acid cleaners).
Scratches on Polished (Satin) Finish.	Slight scratches – use impregnated nylon pads. Polish with scurfs dressed with iron-free abrasives for deeper scratches. Follow polish lines. Then clean with soap or detergent as for routine cleaning.	Do not use ordinary steel wool – iron particles can become embedded in stainless steel and cause further surface problems. Stainless steel and "Scotch-brite" scouring pads are satisfactory.

Precautions

Acids

Acids should only be handled using gloves and safety glasses. Care must be taken that acids are not spilt over adjacent areas. All residues must be flushed to a treated waste stream. Always dilute by adding acid to water, not water to acid. Use acid-resistant containers, such as glass or plastics. If no dulling of the surface can be tolerated a trial treatment should be carried out: especially for pickling operations. All treatments must be followed by thorough rinsing.

Solvents

Solvents should not be used in confined spaces. Smoking must be avoided when using solvents.

Chlorides

Chlorides are present in many cleaning agents. If a cleaner containing chlorides, bleaches or hypochlorite is used it must be afterwards promptly and thoroughly cleaned off.

SECTION 4

GUARANTEE

PROJECT:	Central Village Stage 3 348 Water Street Fortitude Valley, QLD
CLIENT:	PBS Building (Qld) Pty Ltd ABN 18 114 856 674 QBCC Licence No. 1079391
JOB NUMBER:	09/279

Thank you for choosing Total Concept Group.

Our commercial windows and doors, louvers, screens and bi-folds are proudly guaranteed against defects arising from faulty workmanship or materials for a period of 6 years from the date of practical completion of the Project, subject to the following conditions and in accordance with the subcontract and related specifications;

- (a) The product has been installed in accordance with the relevant Australian Standards and recognized building practices.
- (b) The product has been maintained in accordance with the Care and Maintenance Instructions contained in the relevant *Operations & Maintenance Manual* and as available on www.totalconceptgroup.com.au.
- (c) The product has not been subject to misuse, physical abuse or neglect.
- (d) Manufacturing standards and tolerances are not deemed defects, nor are industry acceptable variations in the colour of aluminium surface finishes.
- (e) Total Concept Group assumes no liability for damage caused by cleaning solvents, brick cleaning acids, or other cleaning procedures not specifically recommended in its Care and Maintenance Instructions.