Opus Hardware Warranty

(Crest Group Limited)

HARDWARE WARRANTY

Opus Hardware (Crest Group Limited) and its subsidiaries, warrants its products to comply with the New Zealand Building Code as it applies to hardware subject to the conditions below:

1. All works using the Opus Hardware are carried out in accordance with the site specific installation instruction requirements and Opus literature.
2. Where a Site Specific PS1 is required it is approved and signed off by Opus Hardware prior to the commencement of installation;
3. The exclusions set out below.

In addition Opus Hardware warrants for 10 years that the hardware

a. Is fit for all purposes for which it is commonly supplied; and

b. is acceptable in appearance and finish to the extent of the specifications attached to the product type (eg powder coating, anodising and so on) ;

c. all product is safe and durable to meet the requirements of the NZ Building Code.

Mechanical or Electrical hardware carries a different warranty period to that stated above. In this instance Opus warrants the listed products for 5 years.

d. All Moritz (EPC & EPCHD) product,

e. All Mechanical hinges,

f. Opus EFS840 Floor Springs,

g. All Dormakaba Floor Springs.

h. All Sliding Door Systems (see section 4)

Subject to the terms of this warranty, the Company will either repair or replace any products which are defective, and it may require that the said products are returned to Opus (*freight prepaid). The Company reserves the right to inspect the installation of defective products in situ (ie in the field), and/or request oniste proof from user or installer (in any situation where an onsite technician is unavailable or unable) to determine if there is a valid claim.

What does this warranty exclude?

The warranty shall not apply where any one or more of the following circumstances exist and Opus will not be liable under the warranty for any loss caused as a result of:

a) Any act of default or omission of, or any representation made by or any person other than Opus Hardware (Crest Group Limited) or the employees or agents of Opus Hardware (Crest Group Limited)

b) Improper handling or failure to follow Opus instructions regarding the Product.

c) Improper usage.

d) Failure of product on account of faulty installation, building construction or design. Any defect attributable to a defect in the structure to which the hardware has been affixed or due to incorrect installation.

e) Glass Breakage (Other than that specifically implied and contained within specific Warranties of others (3rd party Glass Companies) attributable to the various glass types others supply.) Contact your Glass Provider before use for 3rd party warranty.

f) Any defect in materials which are covered by any other supplier warranty.

g) Any damage or deterioration arising from causes beyond the control of Opus Hardware (Crest Group Limited), including but not limited to impact, abrasion, earthquake, flood, mechanical damage, neglect, malicious damage, misuse, fire damage, act of God, pollution, abnormal weather, damage caused by geothermal gases, air pollution or severe coastal conditions, excessive heat, exposure to chemicals, or attempted repairs unauthorised by Opus Hardware (Crest Group Limited) in writing.

h) Any defect caused by a failure to regularly maintain the surfaces in accordance with the recommended care and maintenance procedures as set out in this document or any additional suppliers care and maintenance requirements.

i) Hardware that looks similar to Opus Hardware but was not in fact supplied by Opus Hardware.

j) 'Fair wear and tear' as defined in the care and maintenance document as attached.

k) Failure to comply with the care and maintenance document (as attached).

l) Opus Hardware is not liable for any direct or indirect special, consequential or third party claims for loss, damage or expenses.

m) This warranty is not assignable or transferable to subsequent owners without the prior written consent of Opus Hardware (Crest Group Limited).

n) The liability of Opus Hardware shall not exceed the original invoice value of the applicable hardware product at fault (to be looked at – considered?).

o) No liability shall arise where the purchase price for any product supplied remains unpaid (in part, in full), or where the customer is otherwise in default of the terms of the supply agreement.

p) No liability shall arise unless a claim is made in writing to Opus Hardware (Crest Group Limited) within 30 days of the defect arising or being reasonably discoverable by the purchaser.

q) No liability shall arise when the product has been installed carrying or containing a defect. Product/s must be checked upon recieving, and Opus Hardware (Crest Group Limited) will not be liable for any offsite assistance during installation when a defect and/or problem has occured. Prior inspection must be made to the products state and/or appearance, any defect or issues with a product must be reported before a product is taken to site for installation. Based on exclusion clause (q) Opus Hardware is not liable to any excess costs or fees inccured to the user and/or installer of the product purchased during the process.

This warranty does not limit or affect any rights a purchaser may have under the Building Act 2004, Fair Trading Act 1986, the Consumer Guarantees Act 1993 ("CGA") and any other applicable statute.

However, where hardware / glass is supplied (by Crest Group Limited) for the purpose of business, the guarantees contained in the CGA do not apply. Further, if the Customer on-sells the goods it will contract out of the CGA (and any other consumer law) to the extent permissible by law effectively and in writing wherever the goods are on-sold for the purposes of the Customer's business.

Opus Hardware (Crest Group Limited) reserves the right to inspect in the field any hardware or glass which is alleged to be defective and which is subject to a claim under this warranty or under any applicable statute including the Consumer Guarantees Act 1993.

CARE & MAINTENANCE GUIDE

Care and maintenance of Opus Hardware

Hardware requires regular maintenance to ensure the system performs at its best. As a general rule, the harsher the environment, the more regular the maintenance required to keep your hardware in top condition. Also hardware or systems that are covered by verandas or wide eaves and not subject to natural rain wash needs regular cleaning to avoid damage to surface finish on both the aluminium and any surface coated hardware.

Fair wear and tear;

The following maintenance tasks are not covered by this warranty:

- Seals and rubbers will require replacing from time to time depending on the environment. As a general rule, they should last for 10 years or more, and can be replaced by service provider.
- Tracks, rollers and sliders (if accessible) and hardware require lubrication; rollers may require replacing due to normal wear and tear. This depends on the environment and amount of use.

Care and maintenance of powdercoating

Powder coating is available in a wide range of colours with commercially available surface integrity warranties from 10 to 30 years. The powder coating surface warranty period is conditional upon the formulation and micron thickness. Over time with exposure to the elements, powder coatings may show signs of weathering such as loss of gloss, chalking and slight colour change. A simple regular clean will minimise the effects of weathering and will remove dirt, grime and other build-up detrimental to all powder coatings.

1. Opus Hardware uses Dulux Duralloy® and Duratec® architectural powder coatings in most instances, please contact us for additional or alternative requirements.

The frequency of such cleaning will depend on many factors including the:

- Geographical location of the building.
- Environment surrounding the building e.g. marine, industrial, alkaline or acidic, etc.
- Levels of atmospheric pollution including salts.
- Prevailing winds and the possibility of air borne debris causing erosive wear of the coating e.g. sand causing abrasion.
- Protection of part or all of the building by other buildings.
- Change in environmental circumstances during the lifetime of the building e.g. if rural became industrial.

The following guidelines apply:

a. Just a gentle clean with a soft brush and mild detergent, followed by a fresh water rinse, will maintain the long-term performance of the powder coated or anodised aluminium. In rural or normal urban environments cleaning should occur every six months. In areas of high pollution, such as industrial areas, geothermal areas or coastal environments, cleaning should occur every three months. In particularly hazardous locations, such as beachfronts, severe marine environments or areas of high industrial pollution, cleaning should be increased to monthly.

b. Sheltered areas can be at more risk of coating degradation than exposed areas. This is because wind-blown salt and other pollutants may adhere to the surface. These areas should be inspected and cleaned if necessary on a more regular basis.

c. Adequate on site protection of delivered and/or installed hardware must be provided by the installer. Hardware may get knocked, scratched, or splattered with mortar, plaster, or paint during the later stages of construction. If splashes occur immediately wash down the hardware unit affected with water or methylated spirits* (*wash area thoroughly afterwards). Do not allow splashes to harden.

d. To restore powder coated surfaces that have lost gloss or are chalking, polishing with a high quality crème polish in accordance with the manufacturer's instructions is recommended. Avoid polishes that contain cutting compounds, unless the surface is extremely weathered.

DO NOT USE SOLVENTS Strong solvent type cleaners should not be used. These are harmful to the extended life of your hardware system.

Care and maintenance of anodising

Anodised hardware is not only attractive, but also offers a durable and tough wearing finish. Some deterioration of the anodic oxide coating may occur, mainly as a result of grime deposition and subsequent attack by moisture, particularly if the moisture is contaminated with sulphur compounds.

Regular cleaning is essential to preserve the finish of anodised aluminium over a long period. The following guidelines apply:

a. Anodised aluminium should be washed with warm water and a suitable wetting agent or mild soap solution, in a similar manner to washing a car. A fine brush may be used to loosen dirt or grime. The use of anything stiffer or more abrasive may result in damage to the surface. Acid or alkali cleaners should not be used, as these will damage anodic films and may discolour coloured hardware.

b. Where greasy deposits or hard to remove grime is present, the anodising may be cleaned with a soft cloth dipped in white spirit, turpentine, kerosene, or a mild liquid scourer, followed by wiping it with a dry rag. However, the cleaner must ensure none of these solvents come into contact with other parts of the system. All solvents must be kept from contact with the Santoprene glazing gasket materials (the "rubber" seal around the glass), as most solvents will damage them.

c. It is essential to rinse anodised aluminium thoroughly with copious applications of clean water after cleaning, particularly where crevices are present, and then dry the glass to prevent water spots.

Regularly washing anodised hardware will ensure a long lasting product. In general, the following programme is recommended:

- Rural environments: every six months.
- Urban environments: every three months.
- Industrial and marine environments: every six months, as well as a monthly cold water wash.

For additional protection, especially in harsh environments, waxing with a good quality car wax after washing will assist in lifting and maintaining the appearance of your anodised hardware.

Damage to anodised surfaces may occur during building. Painters may accidentally splash paint on newly installed windows and doors, marring their appearance. The cleaner must act quickly and remove such splashes with a soft cloth moistened with water. Using water based paints allows the cleaner to clean with water – using solvents may put your hardware at risk.

CARE & MAINTENANCE GUIDE

Care and maintenance of stainless steel

Stainless steel is used for fittings and hardware by Opus Hardware (Crest Group Limited) for its strength, aesthetics, and its inherent high level of corrosion resistance.

Opus Hardware uses predominately 316 Grade Stainless Steel (also known as Marine Grade stainless) hardware for external applications such as balustrades, pool fences, canopies and spider walls, but many of the entry door patch fittings and handles use 304 Grade. In some cases the higher strength 2205 duplex grade is used by Opus Hardware.

The design of our frameless glass systems and installation techniques are intended to make the systems as maintenance free as possible, but there are still maintenance procedures, associated with any exposed structure, that must not be overlooked. Stainless Steel is called so as it is less prone to staining. It is important to recognize that the material is not impervious to mild staining or even corrosion in some instances. The likelihood and severity of staining is a product of exposure to marine salts and other corrosive materials which can affect installations even 20km inbound from coastal areas.

Pollen and other airborne matter can also contribute to corrosion so there no areas of New Zealand where the topic can be ignored. The smoother the surface is, the less prone to discoloration.

Stainless steel may be discoloured from corrosion;

- If used in areas where rain does not wash the fittings.
- If it is exposed to a more aggressive environment than that for which the particular grade of stainless steel is intended, e.g. highly polluted air, salt solutions or residues of cleaning agents containing chlorine.
- If it has a rough surface that enables a corrosive substance to adhere to.
- If the fittings are not cleaned after installation and have oil/acid from hands.
- If the design of the steel component has crevices and narrow gaps.
- If the surface is contaminated or damaged by grinding swarf or other iron particles from tools used in the installation work.
- If fasteners of ordinary steel or dissimilar metals are used for securing the hardware, or if the hardware comes into direct contact with adjacent components made of plain carbon steel in wet or humid conditions (galvanic corrosion).

Light corrosion is often referred to as “Tea Staining” as it is a brown surface discolouration which, although not affecting the material structurally, is none the less unsightly. The likelihood of this occurring can be greatly reduced through the use of 316 Grade, regular cleaning and the use of protective coatings.

The following guidelines apply;

a. Any stainless steel hardware should be cleaned after installation and before any glass is installed.

b. Basic cleaning can be carried out using simple soap solutions or mild detergents applied with warm water (or proprietary cleaners) and a clean non-abrasive cloth. The solution should be thoroughly rinsed off with cold water, and wiped dry with a clean absorbent cloth. Isopropyl alcohol can also be used to clean finger and hand marks.

c. Avoid bleach, as this can mark the metal surface, and avoid any abrasive applicators - especially a ferrous based cleaning pad, such as steel wool, as this can introduce contamination which reacts with the stainless steel and makes corrosion worse.

q. Protective coatings are also available that can be easily applied to the hardware which can increase maintenance periods. Information regarding these products is available from Opus Hardware. Stainless steel hardware should be cleaned again during the final clean and if possible after any surrounding building work is complete.

r. If mild tea staining has already occurred, a plastic abrasive pad - “Scotchbrite” for example - can be used, again with warm water and a mild detergent / soap solution. When abrading however, it is important to only rub in one direction which is the same direction as any visible brushed finish. Take care to only rub the steel components, not the glass. A stainless steel rejuvenating paste can also be used and works well in combination with a scotchbrite pad. Information regarding these products is available from Opus Hardware.

s. When installation is complete the frequency of a regular cleaning regime will vary according to the installation design and level of exposure, especially in regard to proximity to the sea. In general cleaning should take place 3 to 4 times a year. Protective coatings can prolong the maintenance interval.

Environment	Washing Intervals	
	316 Grade	304 Grade
Clean inland location	6 - 12 months	3 - 6 months
Polluted urban and industrial	6 - 12 months	Unsuitable
Coastal atmosphere	3 - 6 months	Unsuitable

Recommended cleaning methods:

Washing	Method	Comments
Routine cleaning (this is important in Coastal areas)	Soap or detergent and warm water. Or proprietary stainless steel cleaners. Sponge with cloth or soft brush then rinse with clean water and dry.	Satisfactory on all surfaces. Situations directly on the seafront are best if cleaning monthly. Uneven surfaces or surfaces with crevices are prone to trapping corrosion agents.
Fingerprints	Detergent and warm water or organic solvent. Or proprietary stainless steel cleaners.	Satisfactory on all surfaces. To minimise recurrence use a protective coating.
Oil and Grease Marks	Organic solvent, e.g. acetone	Satisfactory on all surfaces. To minimise recurrence use a protective coating.
Stubborn Spots Stains Light Discolouration Hard Water Spots Scale and General Water Marks	Mild abrasive detergents rinse and dry.	Use a stainless steel rejuvenating paste and protective coating.
Heavy Discolouration	Mild abrasive detergents rinse and dry. A plastic abrading pad and or paste can be used with care.	Use a stainless steel rejuvenating paste and protective coating.

CARE & MAINTENANCE GUIDE

In summary:

- Cleaning should be thorough and at a frequency to suit the environment.
- Wash with warm water and mild detergent or soap solution or use proprietary stainless steel cleaners.
- Rinse thoroughly with clean cold water and dry.
- Do not use harsh abrasive cleaners and especially no wire wool or similar ferrous scourers.
- If mild corrosion is present, then a mild abrasive detergent or rejuvenating paste can be used with a warm mild solution and fully rinsed with clean cold water.
- Heavier levels of staining can be removed with a light plastic abrading pad (such as Scotchbrite) rubbing must only be in one direction with that being as per any visible surface finish. This is best done with a rejuvenating paste. Use protective coatings after cleaning.
- Be careful to ensure cleaners do not effect fibre or other fitting gasket materials.

Care and maintenance of handles / mechanisms

Periodic maintenance of handles / mechanisms is essential, this includes locks, handles, hinges, levers, rollers, bolts, etc. This applies particularly to mechanisms with moving parts that require lubrication. Before doing any cleaning or maintenance, you must establish exactly what hardware has been installed and how it has been constructed.

Lubrication for Mechanisms;

Mechanisms include hinges, cylinders, locks, rollers and fasteners. You can keep these mechanisms in good working order through regular cleaning and lubrication.

a. Opus Hardware recommends a Teflon-based lubricate or please refer to the manufacturer's care instructions. A soft bristle brush can be used on exposed parts. Apply Teflon-based lubricate to the moving parts – you don't need to use very much. This will limit corrosion of the exposed metals. Opus Hardware advise to do this once every two months. If, however your hardware is near the sea or exposed to salt air, we recommend you lubricate the components once every month.

Electrical Entrance Systems;

Do not let the product get wet.

1. Keep clear of debris and general dirt.
2. Wipe the keypads or swipe the device with a clean damp cloth.
3. Do NOT use solvents.
4. Replacement batteries will be required.

Onsite construction / installation protection

Hardware Protection during Installation:

a. All the activity on a construction site means that your hardware items may get knocked or scratched, splattered with mortar, plaster, textured coating or paint during the later stages of construction.

b. Please ensure that all hardware articles are masked or covered at this time. It is far easier to prevent accidents than to try and correct them. Should your hardware receive mortar or paint splashes see that these are removed before cure and follow the instructions outlined above.

For further information, please refer to the PS1 or Opus Hardware instructions and guidelines on our websites.