



## Product Declaration for:

### UNO Thermal Aluminium Joinery System

#### 1. Product Line

The product line is **UNO Thermal** produced by UNO Windows and Doors Ltd.

#### 2. Summary of Description of Building Product

UNO Thermal windows and doors system is a thermally broken aluminium joinery range, designed to provide increased insulation performance, which includes:

- Fixed, Awning, and Casement Open Out windows
- Slider and stacker doors and windows
- Open In and open out hinge doors and french doors

The system also makes it possible to combine multiple configurations in one window, like a sliding door with an awning window at the sidelight. For a full range of windows configurations, please access: <https://www.unowindows.co.nz/products/aluminium-windows#window-types>

The windows are made of aluminium extrusions with internal thermal strips of Polyamide 66.

The insulated glazing units used in this system can be double or triple layered using thermal spacers, argon gas, and the panes can be float, toughened, or laminated glass.

#### 3. Relevant Building Code clauses

UNO Thermal windows and doors comply with the following New Zealand Building Code clauses if used, installed, and maintained in accordance with UNO Windows installation and maintenance requirements:

- B1 Structure – B1.3.1, B1.3.2, B1.3.3 (a, b, h, j), B1.3.4
- B2 Durability – B2.3.1 (b, c)
- C4 Movement to a place of safety - C4.3 and C4.5
- D1 Access Routes - D1.3.1 (b).
- E2 External moisture – E2.3.2, E2.3.7
- E3 Internal moisture – E3.1.3
- F2 Hazardous building materials – F2.3.1, F2.3.3
- F4 Safety from Falling – F4.3.1
- F9 Means of restricting access to residential pools – F9.3.4
- G4 Ventilation – G4.3.1, G4.3.3
- G7 Natural Light – G7.3.1, G7.3.2
- H1 Energy efficiency – H1.3.1 (a, b), H1.3.2E

##### 3.1. Compliance Statements

### **3.1.1. B1 Structure**

UNO Thermal windows have been tested in accordance with SNZ TS 4211:2022 and with NZS 4211:2008 and are manufactured to the structural requirements of the Wind Zone specified in the project requirements. UNO Thermal windows are glazed to comply with NZS 4223.3:2016 where specified in the project requirements to allow for human impact.

### **3.1.2. B2 Durability**

UNO Thermal Windows can be finished to provide a durability of at least 15 years in all Exposure Zones , except in microclimates where there is evidence of corrosion in adjacent structures caused by industrial or geothermal atmospheres. Durability is dependent on UNO Thermal windows and doors being installed and maintained in accordance with UNO Windows and Doors care & maintenance requirements. IGUs comply with the requirements of NZS 4223.2: 2016. Timber reveals comply with NZS 3602:2003.

### **3.1.3. C4 Movement to a place of safety**

UNO Thermal windows and doors can be used within an escape route where relevant considerations are specified in the project requirements.

### **3.1.4. D1 Access Routes**

UNO Thermal windows and doors can be used within an access route where relevant considerations are specified in the project requirements.

### **3.1.5. E2 External moisture**

UNO Thermal windows and doors have been tested in accordance with SNZ TS 4211:2022 and with NZS 4211:2008 and is fabricated to the water penetration requirements of the Wind Zone specified in the project requirements. UNO Thermal Windows is suitable for installation in accordance with Acceptable Solution E2/AS1 and can be supplied with sill support bars to suit the cladding selection. Installation details provided by other parties such as architects and cladding system suppliers may also be suitable.

### **3.1.6. E3 Internal moisture**

UNO Thermal windows and doors are glazed with IGUs to the project requirements and do not require condensation collection channels to meet the requirements of E3/AS1 Second Edition Amendment 7, Paragraph 1.3 Condensation control.

### **3.1.7. F2 Hazardous building materials**

UNO Thermal windows and doors are safe when handled in accordance with installation instructions. UNO Thermal is fabricated to comply with NZS 4223.3:2016 where specified in the project requirements.

### **3.1.8. F4 Safety from Falling**

UNO Thermal windows are fabricated with opening restrictors to comply with F4/AS1 Third Edition Amendment 2, Paragraph 2.0 Opening Windows, where relevant considerations are specified in the project requirements.

### **3.1.9. F9 Means of restricting access to residential pools**

UNO Thermal windows and doors may be fabricated with restrictors, door closers and swimming pool barrier latches fitted to opening windows or doors within a wall that forms part of a residential pool barrier. Residential pool barrier designs may comply with F9/AS1 First Edition, or with an alternative design provided by other parties. UNO Thermal windows do not include warning signs and door alarms: if these are required by the design then they must be supplied and installed on site by others.

#### **3.1.10. G4 Ventilation**

UNO Thermal windows and doors can be fabricated with opening sashes of type and dimensions specified in the project requirements to help provide building ventilation. Ventilation design can use openings to comply with G4/AS1 Fourth Edition, Paragraph 1.2 Natural ventilation, or an alternative ventilation system design provided by others, such as a mechanical services engineer.

#### **3.1.11. G7 Natural Light**

UNO Thermal windows and doors can be fabricated with the area and Visible Light Transmittance (VLT) of glazing specified by the project requirements to help provide natural light and awareness of the outside. Glazing design may comply with G7/AS1 Second Edition or G7/AS2 First Edition, or an alternative glazing design provided by other parties such as lighting engineers.

#### **3.1.12. H1 Energy efficiency**

H1.3.1(a), and H1.3.2E: UNO Thermal windows and doors are fabricated with IGUs made from a range of possible glass, spacer, and infill gas types, to suit the window insulation (R-value) requirements of the project, to comply with H1/AS1, H1/AS2, or with H1/VM1.

#### **3.1.13. Other Relevant Standards**

Relevant standards UNO Thermal Windows, and/or its component parts, are tested, fabricated and specified to comply with the following standards, as relevant to the project specifications:

- SNZ TS 4211:2022 Specification for the classification of windows
- NZS 4211:2008 Specification for the performance of windows
- NZS 4223 Code of practice for glazing in buildings - Part 1:2008 Glass selection and glazing
- NZS 4223 Code of practice for glazing in buildings - Part 2:2016 Insulating glass units
- NZS 4223 Code of practice for glazing in buildings - Part 3:2016 Human impact safety requirements
- NZS 4223 Code of practice for glazing in buildings - Part 4:2008 Dead, wind and snow loading
- NZS 3602:2003 Timber and wood-based products for use in buildings
- AS 3715:2002 Metal finishing – Thermoset powder coatings for architectural applications of aluminium and aluminium alloys.

## **4. Scopes of Use**

This window and door system is designed to be used in, but not limited to, residential, offices, schools, light commercial, and industrial projects up to three storeys in height, on wind zones up to and including Extra High, for providing natural light, and ventilation. For any SED requirements, please contact UNO Windows.

This system is suitable for use in parts of buildings where safety glass is required in accordance with F2.3.3 of the building code. This system has not been tested for use as fire windows and doors.

## **5. Conditions of use**

All windows and doors must be designed and assembled in accordance with UNO Windows manufacturing requirements.

UNO Thermal windows and doors:

- Must be used with buildings within the Scope of E2/AS1, paras 1.1, 1.1.1 & 1.2.1
- Must be installed with claddings and details as described in E2/AS1. They may also be used in projects outside this scope if other parties, such as architects or cladding system suppliers, establish appropriate design and installation requirements which are approved by UNO Windows.
- Must be used in buildings located in any Wind Zones up to and including Extra High (as defined in NZS 3604:2011) For any SED requirements, please contact UNO Windows.

They are not suitable for use in microclimates where there is evidence of corrosion in adjacent structures caused by industrial or geothermal atmospheres.

UNO Thermal windows and doors do not have fire resistant glazing and cannot provide a fire resistance rating. UNO Thermal windows and doors are not suitable for use where recommended maintenance cannot be reasonably achieved, including use in buildings taller than three storeys or 10 m in height.

Where the scope is outside of these conditions, please contact UNO Windows.

## 6. Conditions Relating to Specification

UNO Thermal is designed for, but is not limited to, use in projects within the following scope:

- Residential, offices, schools, light commercial, and industrial projects up to three storeys in height, and their associated ancillary and outbuildings.
- All Wind Zones up to and including Extra High. For any SED requirements, please contact UNO Windows.
- All Exposure Zones, except in microclimates where there is evidence of corrosion in adjacent structures caused by industrial or geothermal atmospheres.
- Overall door or window sizes up to 2.4 m high. Limitations on the configuration, maximum dimensions, and weights of individual panels also apply, and are dependent on the panel type. Please contact UNO Windows for more information on your specific application.
- Maximum IGU thickness is 39 mm.
- Design and installation that follows common Acceptable Solutions such as E2/AS1, F4/AS1, G4/AS1, G7/AS1 and H1/AS1.
- Powdercoated or anodised finish to the aluminium, selected from the UNO Windows 6 key standard colours or expanded available colour range.
- Timber reveals pre-primed for site painting, unless otherwise agreed with UNO Windows.

UNO Thermal Windows have an air permeability class of 3 (determined in accordance with SNZ TS 4211:2022) and achieves an air infiltration rating for air-conditioned buildings (determined in accordance with NZS 4211:2008). Controlling air permeability and infiltration helps prevent heat losses from buildings.

When calculating the opening areas of the UNO Windows and Doors for ventilation purposes, areas must be in accordance with G4/AS1.

UNO Thermal can be used with any combination of wall structure and cladding. Every window is made with the required dimensions and connections to fit the project requirements.

UNO Thermal Windows are custom fabricated to the requirements of each project. Prior to fabrication, the following project selections must be confirmed by the specifier:

- Unit sizes – height and width and wall & cladding thickness.
- Opening panel size(s) and type(s), and configuration of fixed and opening panels, including any specific

requirements for doors that are on access routes or escape routes.

- Project Wind Zone.
- Project Exposure Zone.
- IGU performance selections, including R-value, solar heat gain (SHGC), VLT, and any acoustic or safety glazing requirements.
- Hardware and safety fittings: handles, locks, restrictor stays, door closers, or any special features for safety from falling or access requirements.
- Finish requirements and colour for aluminium components.
- Any special requirements for reveals. Default reveal specification is pre-primed, finger-jointed, H3.1 treated radiata pine suitable for paint finish and architraves.
- Any other specific requirements. (eg: claddings, flashings, rebates, floor coverings, threshold details, etc.)

## 7. Installation Requirements

- Ensure that the joinery is protected from dust, debris, and moisture if stored prior to installation.
- Inspect joinery thoroughly before beginning installation to ensure it is free from any defects and damage, including damage caused during transit, delivery, or storage.
- Check the dimensions and fit of each unit against the rough opening.
- Install the door in accordance with the consented or approved shop drawings and with “Guide to Window Installation” as described in E2/AS1 Amendment 8 available at [www.wganz.org.nz](http://www.wganz.org.nz)
- Ensure door and window units are installed plumb, level, and in plane, within the tolerances set out in the MBIE Guide to materials, tolerances, and workmanship in residential construction.
- Ensure sufficient fixings are used at the correct spacings
- Ensure all weather sealants and air seals are applied thoroughly to the opening as specified or detailed.
- Check and adjust operating hardware to ensure good fit against all seals and proper operation and function without jamming or uneven gaps.
- Ensure drain holes are clear of dirt and debris following installation

## 8. Maintenance Requirements

Simple regular maintenance is required to comply with the warranty requirements and will help to maintain the appearance of your windows and doors into the future. Exterior surfaces of UNO Thermal Windows should be washed at least once every three months, and more frequently for buildings in harsh environments (eg: close to beaches, coastlines, and harsh Industrial or geothermal environments), and for units that are not completely exposed to regular rain washing, such as those which are partly or fully sheltered by eaves, porches, adjacent buildings, trees, etc. The frequency of washing in these harsh environments should be determined by the degree of salt or other contaminant build up on the windows and doors but should be at least once a month. Washing should include the rinsing of all window and door cavities to remove contaminants and avoid corrosion.

- All drain holes in aluminium UNO Thermal Windows members should also be cleaned every three months to prevent the build-up of dirt or debris that could impede the free passage of air and water.
- The sill tracks and all top and bottom of UNO Thermal Windows sliding and bifolding units should also be inspected and cleaned every three months to remove any debris and dirt.
- Interior surfaces of UNO Thermal Windows should be regularly dusted or wiped with a sponge or soft cloth and warm water then dried.
- Handles, catches, and similar hardware on UNO Thermal Windows should be cleaned regularly with a sponge or soft cloth and warm water, mild detergent may be used for powdercoated or anodised components or use a proprietary cleaning product designed for the hardware finish material. Plated products should be cleaned with a wet sponge or dry duster. NEVER use detergent or abrasive cleaners on plated products. Plated hardware is not recommended and is excluded from any warranty as deterioration occurs in some environmental conditions.
- Glass surfaces of UNO Thermal windows may be cleaned with a sponge or soft cloth and warm water with mild detergent, or with proprietary glass cleaning products, then followed with a squeegee to remove all the

cleaning solution from the glass surface. All water and cleaning residue should be dried from the glass, seals, and frames as cleaning residue can permanently damage the surface of the glass. Abrasive materials should not be used to clean or wipe glass, as this will cause damage to the glass surface.

- All seals, hinges, stays, rollers, and other hardware should be checked annually for proper fit and operation, lubricated as necessary, and to check that all screws and fixings remain tight.
- Be aware that sunscreen lotions can also damage the Powdercoat if these come in contact with the powder coated metal surface.

## 9. Warranty

UNO Thermal Windows system by UNO Windows and Doors has a product warranty, under normal conditions of use, against failure of materials or workmanship for a period of 2 years, provided care and maintenance guidelines have been followed. The surface finish of the aluminium extrusion, dependent on the actual finish selected, and hardware are covered by separate supplier warranties. Plated hardware finishes are excluded from the warranty. Please note, this warranty is subject to the product being correctly installed as outlined in the NZBC E2/AS1: External Moisture or to an approved alternative solution, and in the correct wind zone.

To validate this warranty please register within 30 days of receiving your project invoice by emailing [office@unowindows.co.nz](mailto:office@unowindows.co.nz), stating purchaser name, invoice No., and project address.

Warranty queries should be directed to UNO Windows.

Please contact UNO Windows for a copy of our Terms and Conditions.

## 10. Health and Safety Information

The compliance with any manufacturer's installation instructions, OH&S statements, MSDS's and other Health and Safety declarations will provide the necessary Health and Safety Information pertaining to the product.

## 11. Contact Details

Legal and trading name of the manufacturer: UNO Windows and Doors Limited

Address: 17 Fitzgerald Lane, Hawera 4675

Website: [www.unowindows.co.nz](http://www.unowindows.co.nz)

Email: [office@unowindows.co.nz](mailto:office@unowindows.co.nz)

Phone: 06 272 9080

NZBN: 9429032785036

## 12. NZ Building Act Section 26

This building product/building product line is not subject to warning or ban under section 26.