BUILDING PERFORMANCE

altus Window Systems

CLASS 2

# Building Product Information Sheet

Product name:

Altus DualGlaze System

Product line *(the product line from which the product is customised)*:

N/A

Product description and its intended use *(measurements, materials, usage)*:

- Altus DualGlaze System comprises of replacement glass, beads, sashes, adaptors and/or door panels for existing joinery being retro fitted.
- Altus DualGlaze System has been designed for retro fitting existing aluminium window joinery in residential housing.
- Altus DualGlaze System is custom fabricated to the requirements of each project. Units are glazed with single or double pane glass into existing aluminium windows and/or doors. Options include fixed glass and bead replacement, awning or casement window replacement, glass replacement with adaptors for sliding doors, and/or door panel replacements.

Note: For insert replacement windows into existing timber frames or full joinery replacement, please refer to the specific Altus system BPIR document.

Product identifier *(if applicable)*:

DualGlaze

Place of manufacture: ☑ Aotearoa New Zealand ☐ Overseas

Legal and trading name of the manufacturer(s):

Altus NZ Limited

Legal and trading name of the importer *(if applicable)*:

Address for service:

STREET NAME 49 Business Parade North SUBURB East Tamaki

CITY, COUNTRY Auckland POSTCODE

Website: www.altus.co.nz

Email address: Altus.Enquiry@altus.co.nz

Phone No. *(if applicable)*: 0800 925 500

NZBN *(if applicable)*: 9429042187615

Relevant Building Code clauses:

- B1 Structure: Performance clauses B1.3.1, B1.3.2, B1.3.3 B1.3.4.
- B2 Durability: Performance clauses B2.3.1(b) and B2.3.2.
- C4 Movement to a place of safety: Performance clauses C4.3 and C4.5
- D1 Access Routes: Performance clause D1.3.1 (b).
- E2 External Moisture: Performance clause E2.3.2 and E2.3.7.
- E3 Internal Moisture: Performance clause E3.3.1
- F2 Hazardous Building Materials: Performance clauses F2.3.1, F2.3.2, F2.3.3.
- F4 Safety from Falling: Performance F4.3.1 and F4.3.4.
- F9 Means of restricting access to residential pools: Performance clause F9.3.4
- G4 Ventilation: Performance G4.3.1 and G4.3.3
- G7 Natural Light: Performance G7.3.1 and G7.3.2.
- H1 Energy Efficiency: Performance clauses H1.3.1, H1.3.2E and H1.3.3.

Statement on how the building product is expected to contribute to compliance:

- **B1.3.1, B1.3.2, B1.3.3 and B1.3.4:** Altus DualGlaze System is fabricated to the structural requirements of the Wind Zone specified in the project requirements. DualGlaze is glazed to comply with NZS 4223.3:2016 where specified in the project requirements because human impact may occur. Existing joinery structures e.g. mullions, are not applicable to this BPIR. Unless clearly deformed, damaged or otherwise in an unnatural state, exisiting structures should be treated as compliant with the relevant building standards at the time of installation.
- **B2.3.1(b) and B2.3.2:** Altus DualGlaze System 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 DualGlaze being installed and maintained in accordance with Altus NZ Ltd requirements. Timber reveals comply with NZS 3602:2003.

  Hardware elements shall meet a durabilty of at least 5 years.
  Existing joinery durability e.g. mullions, are not applicable to this BPIR.
- **C4.3 and C4.5:** Altus DualGlaze System doors can be used within an escape route where relevant considerations are specified in the project requirements.
- **D1.3.1(b):** Altus DualGlaze System doors can be used within an access route where relevant considerations are specified in the project requirements.
- **E2.3.2 and E.2.3.7:** Specific insert part of the Altus DualGlaze System can be fabricated to suit the water penetration requirements of the Wind Zone specified in the project requirements where applicable. Existing joinery water performance (including installation) is not applicable to this BPIR and remains the predominant factor for water control. DualGlaze products shall not be expected to meet or improve E2 requirements. Full replacement should be considered if there is any cause for concern.
- **E3:** Altus DualGlaze System is designed to be retro fitted into existing joinery and as such relies on existing condensation control systems. Applied condensation channels can be installed retrospectively to joinery if required.
- **F2.3.1, F2.3.2 and F2.3.3:** Altus DualGlaze System is safe when handled in accordance with installation instructions and is fabricated to comply with NZS 4223.3:2016 where specified in the project requirements.
- **F4.3.1 and F4.3.4:** Altus DualGlaze System is 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.
- **F9.3.4:** Altus DualGlaze System 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. DualGlaze does not include warning signs and door alarms: if these are required by the design then they may be supplied and installed on site by others.
- **G4.3.1 and G4.3.3:** Altus DualGlaze System can be fabricated with opening sashes of type and dimensions specified in the project requirements to help provide building ventilation. Ventilation design may comply with G4/AS1 Fourth Edition, Paragraph 1.2 Natural ventilation, or an alternative ventilation system design which utilises opening window sashes and is provided by other parties such as mechanical services engineers could be suitable.

- **G7.3.1 and G7.3.2:** Altus DualGlaze System 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 could be suitable. DualGlaze should not be expected to improved on exisiting visible light requirements.

- **H1.3.1(a), and H1.3.2E:** Altus DualGlaze System can be fabricated with single or double pane glass. When replacign single pane with double pane glass, the Altus DualGlaze system will improve the overall thermal performance of existing unit.

**Relevant standards**

Altus DualGlaze System and/or its component parts, are tested, fabricated and specified to comply with the following standards, as relevant to the project specifications:

- 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 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*.

- *options for compliance set out in section 19 of the Act (regulations, acceptable solution, verification method)*
- *standard or technical document that describes the performance of the building product or the relevant specifications to which the building product was manufactured*
- *physical properties of the building product*
- *how the building product is intended to be used.*

Limitations on the use of the building product:

Altus DualGlaze System is not fire resisting glazing and cannot provide a fire resistance rating.

Altus DualGlaze System is not suitable for use in high-use situations such as commercial, institutional assembly or industrial buildings.

Altus DualGlaze System may not be suitable for use where recommended maintenance cannot be reasonably achieved,including use in buildings taller than three storeys or 10m in height.

Design requirements that would support the use of the building product:

Altus DualGlaze System is designed for, but is not limited to, use in projects within the following scope:

- Housing and residential apartment buildings, and their associated ancillary and outbuildings.
- Building height up to three storeys or 10 m.
- Timber framed construction.
- All Wind Zones up to and including Extra High.
- 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 size up to 6m wide x 2.4 m high, with maximum unit weight 100 kg. Limitations on the configuration, maximum dimensions, and weights of individual panels also apply, and are dependent on the panel type.
- Maximum IGU thickness is 22mm.
- Anodised or powdercoat finish to aluminium, selected from the Altus NZ Ltd available colour range.

Altus DualGlaze System should be expected to improve (but not reinstate) existing air infiltration ratings for air-conditioned buildings (determined in accordance with NZS 4211) when new seals are provided. Controlling air permeability and infiltration helps prevent heat losses from buildings.

Altus DualGlaze System is custom fabricated to the requirements of each project. Prior to fabrication, the following project selections must be confirmed by the specifier:

- Unit size.
- 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.
- R-value specification (noting DualGlaze is limited by the double pane thickness and hence UCog value achieved), solar heat gain (SHGC), VLT, and safety glazing requirements.
- Safety fittings and hardware: restrictors, door closers and swimming pool barrier latches to be fitted where an opening window or door requires features for safety from falling or is within a wall that forms part of a residential pool barrier.
- Finish requirements and colour for aluminium components.

Installation requirements:

Given Altus DualGlaze system is installed into existing joinery, connections to the building structure are not considered here.

- Inspect joinery thoroughly before beginning installation to ensure it is free from any defects and damage, including damage caused during transit and delivery.
- Check the dimensions and fit of each unit against the opening.
- Check existing joinery for any clear signs of damage, deformation or otherwise that would indicate the need for full replacement. Re-sealing of transoms, mullions, and corners should be considered at this stage.
- Check and adjust all seals and operating hardware to ensure good fit and proper operation and function without jamming or gaps.
- Ensure drain holes are clear of dirt and debris following installation.

Maintenance requirements:

- Exterior surfaces of Altus DualGlaze System should be washed at least once every 3-6 months, and more frequently for buildings in harsh environments (eg, close to beaches and coastlines), and for units that are not completely exposed to regular rain washing, such as those which are partly or fully sheltered by eaves, gable verges,porches, verandah roofs, adjacent buildings trees, landscaping or garden features etc.
- All drain holes in aluminium Altus DualGlaze System members should also be cleaned every 3-6 months to prevent the build-up of dirt or debris that could impede the free passage of air and water.
- The tracks and guides (either top and/or bottom) of door panels should also be inspected and cleaned every 3-6 months to remove any debris and dirt.
- Interior surfaces of Altus DualGlaze System should be regularly dusted or wiped with a sponge or soft cloth and warm water. Do not use harsh cleaners or detergents.
- Handles, catches, and similar hardware on Altus DualGlaze System 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.
- Glass surfaces of Altus DualGlaze System may be cleaned with a sponge or soft cloth and warm water with mild detergent, or with proprietary glass cleaning products. 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, and to ensure all screws and fixings remain tight.

Is the building product/building product line subject to warning or ban under section 26?:

☐ Yes ☑ No

If yes, description of the warning or ban under section 26:

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Date: 01/06/2024