

Title	Install aluminium windows and doors		
Level	4	Credits	10

Purpose	<p>This unit standard is for experienced people employed to install windows and doors.</p> <p>People credited with this unit standard are able to:</p> <ul style="list-style-type: none"> • check building site readiness for the installation of aluminium windows and doors; • check and store the aluminium window and door products on site; • prepare and install aluminium windows and doors; and • check operation and quality of the installed product, and complete on-site contract documentation.
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Classification	Joinery > Architectural Aluminium Joinery
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Available grade	Achieved
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Guidance Information

- 1 Legislation and standards relevant to this unit standard include – Building Act 2004, Health and Safety at Work Act (2015), Resource Management Act 1991, New Zealand Building Code Compliance Documents and Handbooks. Wellington: Department of Building and Housing, 2008, available at <http://www.dbh.govt.nz/building-code-compliance-documents>, New Zealand Standard (NZS) 4211:2008 *Specification for performance of windows*, NZS 3504:1979 *Specification for aluminium windows*, NZS 3604:2011 *Timber-framed buildings*, , NZS 4223.3:2016 *Glazing in buildings - Part 3: Human impact safety requirements*, AS/NZS 1170.0:2002 *Structural design actions – General principles*, and AS/NZS 4666:2012 *Insulating glass units*, available at <http://www.standards.co.nz>.
- 2 References
Insulated Glass Unit Manufacturers Association (IGUMA) guidelines and data sheets all available from the Window Association of NZ (Inc.), PO Box 11 464, Manners Street, Wellington.
BRANZ recommendations for installation, available at <http://www.branz.co.nz>.
- 3 Definitions
E2 AS/1 – the Acceptable Solution for Clause E2 External Moisture of the NZ Building Code (the ‘Weathertightness solution’) and sets out performance standards for installation of windows and doors.
Other consented system – a specific design for which building consent has been obtained.

Company procedures – the documents and procedures that include company rules, codes and practices; machine and equipment operating instructions; quality and conformance checks, and health and safety requirements.

4 Range

This unit standard applies to all forms of cavity and direct fix construction.

Outcomes and performance criteria

Outcome 1

Check building site readiness for the installation of aluminium windows and doors.

Performance criteria

- 1.1 Installation requirements are checked against contract specifications.
- Range requirements include – timing of installation and inspections, requirements and availability of scaffolding, hoisting arrangements, sub-contracted personnel, consistency with consented plan.
- 1.2 The builder's work is checked for compliance with contract specifications and installation system, and completion of all building requirements for the effective installation of aluminium windows and doors is verified.
- Range checking includes – all measurements, window and door openings, total wall thickness, building wraps, tapes, builder supplied flashings.
- 1.3 Where required, builder is notified of any faults for correction prior to installation.
- 1.4 Sub-contracted personnel are confirmed.

Outcome 2

Check and store the aluminium window and door products on site.

Performance criteria

- 2.1 Products delivered to site are checked to ensure they meet specifications.
- Range checking includes – size, measurements, configuration, colour.
- 2.2 Products are stored without being damaged, using protective storage materials compatible with the finished product, and in an environment that ensures optimum condition of products, in accordance with company procedures and/or IGUMA guidelines.

Outcome 3

Prepare to install the aluminium windows and doors.

Performance criteria

3.1 Installation system is verified and the product, drawings, plan, and work schedule are checked for compliance with the job specifications and client requirements.

Range installation system includes – E2 AS/1 compliant system, other consented system.

3.2 Specialist componentry, brackets, fixings, flashings, and sealants are checked for material compatibility with type and brand of product.

3.3 Requirements for the installation of insulated glass units are checked against the job specifications and IGUMA guidelines.

Range checking includes – sill support, drainage, glass blocking.

Outcome 4

Install the aluminium windows and doors.

Performance criteria

4.1 Building site safety requirements are checked, and installation is selected and used according to worksite procedures and the relevant legislation.

4.2 Personal protective equipment is selected and worn in accordance with company procedures.

Range personal protective equipment includes – safety glasses, dust masks, protective footwear, ear protection.

4.3 Products are installed and aligned vertically, horizontally, and diagonally in accordance with the job specifications, relevant installation guidelines, and the principles for window and door installation.

Range principles include – water management, plumb installation, tolerances, pressure equalisation, sill support, material compatibility, safety.

4.4 Specialist componentry, brackets, fixings, and flashings are positioned, fixed, or sealed in accordance with the job specifications and installation guidelines.

4.5 On-site glazing is completed in accordance with NZS 4223.3:2011 and IGUMA Guidelines.

Outcome 5

Check operation and quality of the installed product, and complete on-site contract documentation.

Performance criteria

- 5.1 Product is inspected and is clean, damage-free, fully operational, and meets all quality requirements in accordance with job and product specifications, type, and brand.
- 5.2 All documentation and inspections are completed in accordance with company procedures and contract specifications.

Replacement information	This unit standard replaced unit standard 559 and unit standard 560.
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Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	20 June 2008	31 December 2012
Rollover and Revision	2	20 May 2011	31 December 2017
Review	3	21 May 2015	31 December 2025
Review	4	26 May 2022	N/A

Consent and Moderation Requirements (CMR) reference	0048
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.