

Title	Glaze non-standard (special) aluminium joinery products		
Level	4	Credits	8

Purpose	<p>This unit standard is for people employed in the aluminium joinery industry.</p> <p>People credited with this unit standard are able to: prepare to glaze, and glaze, non-standard (special) aluminium joinery products; glaze an insulated glass unit into aluminium joinery; and complete workplace requirements.</p>
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Classification	Construction Trades > Architectural Aluminium Joinery
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Available grade	Achieved
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Guidance Information

- Industry references include but are not limited to the Insulated Glass Unit Manufacturers Association (IGUMA) guidelines and data sheets (IGUMA guidelines), both available from the Window Association of NZ (Inc.), PO Box 11 464, Manners Street, Wellington; and the *Metro GlassTech Catalogue and Reference Guide 6th edition* (Metro Glass catalogue), available from Metro Glasstech, PO Box 58 144, Greenmount, Auckland, or online at <http://www.metroglasstech.co.nz>.
- Legislation and standards relevant to this unit standard include but are not limited to the Building Act 2004; Health and Safety in Employment Act 1992; 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 4223 Parts 1 and 2: 1985 *Code of practice for glazing in buildings*; NZS 4223.3:1999 *Code of practice for glazing in buildings – Human impact safety requirements*; and AS/NZS 4666:2000 *Insulating glass units*, available at <http://www.standards.co.nz>.
- Definitions

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.

Non-standard or special aluminium joinery products (specials) – unique designs or ‘one-off’ products characterised by unusual or non-standard angles and dimensions which include but are not limited to the following:
 windows – arch, bay, bow (box), curved, faceted, raked, corners (internal, external), double hung, greenhouse;
 doors – arch, raked, internal/external in plan corners;

Unusual angles – any angles that are not 45 or 90 degrees, or not common to the company's products.

- 4 The skills needed for making *specials* include the ability to: interpret product drawings and/or work from site measurements; use the appropriate geometrical equipment to calculate and measure the unusual angles and dimensions; work out a step-by-step process; and develop a layout or work to a supplied template if necessary.
- 5 Glass for installing into *specials* may be delivered pre-cut to the company site, or direct to the building site for on-site installation. In circumstances where this is not the case, aluminium joiners need the ability to cut glass or form a template for the glass supplier, for single glazed units.
- 6 Candidates must demonstrate competence in glazing the following products for credit: bay, corner, curved (flat with curved or arched head) or faceted, greenhouse, raked, windows.

Outcomes and performance criteria

Outcome 1

Prepare to glaze non-standard (special) aluminium joinery products.

Performance criteria

- 1.1 Product and job specifications and quality requirements are verified in accordance with company procedures.

Range may include but is not limited to – computerised specifications, job sheets, site measurements, material manufacturer's instructions, glass type and glazing method.
- 1.2 Work area is free of debris and abrasive materials in accordance with company procedures.
- 1.3 Personal protective equipment is selected and worn in accordance with company procedures.

Range may include but is not limited to – safety glasses, dust masks, protective footwear, ear protection.
- 1.4 Hazards are identified, and procedures for their elimination, minimisation, or isolation are implemented before glazing commences.
- 1.5 Glass is selected and cut, if necessary, and meets the job specifications.

Range includes but is not limited to – size, thickness, angle and dimension, quality and freedom from faults, safety labels.

1.6 Glazing system is selected for the type of product in accordance with the job specifications.

Range includes but is not limited to – pocket glazing with gaskets and wedges, pressure bead glazing, bead glazing with gaskets and wedges, silicon joints.

1.7 Glass type and glazing method comply with the requirements of NZS 4223 Parts 1 and 2.

1.8 Glazing materials and frame components are prepared in accordance with the job specifications and company procedures.

Range glazing materials and frame components may include but are not limited to – beads, gaskets, wedges, setting blocks, silicones and sealants.

Outcome 2

Glaze non-standard (special) aluminium joinery products.

Range includes but is not limited to – pocket glazing with gaskets and wedges, pressure bead glazing, bead glazing with gaskets and wedges, silicon joints.

Performance criteria

2.1 Glazing equipment and tools are selected and checked in accordance with company procedures.

2.2 Glazing procedures are in accordance with the job specifications and company requirements.

Range requirements may include but are not limited to – correct blocking, correctly oriented glass, gaskets and wedges not stretched, unobstructed drainage.

2.3 Glazing is completed without damage to the glass or aluminium joinery, injury to the installer, or danger to others, and is in accordance with company procedures.

Outcome 3

Glaze an insulated glass unit into aluminium joinery.

Performance criteria

3.1 Product and job specifications, and quality requirements are verified in accordance with company procedures and IGUMA guidelines for pre-glazing.

Range may include but is not limited to – computerised specifications, job sheets, material manufacturer's instructions, glass type and glazing method, sealant compatibility.

3.2 Glazing of an insulated glass unit is carried out in accordance with job specifications, company procedures, IGUMA guidelines, and AS/NZS 4666:2000.

Range specifications may include but are not limited to – correct blocking, correctly oriented glass, gaskets and wedges not stretched, labels, unobstructed drainage.

3.3 Lifting and storage of insulated glass unit is carried out in accordance with company safety procedures and IGUMA guidelines.

Outcome 4

Complete workplace requirements.

Performance criteria

4.1 Inspection of finished work ensures that glazing meets job specifications and company procedures.

4.2 Glass is trade cleaned and cleared of lubricants, and the aluminium joinery product is labelled in accordance with company procedures.

4.3 Tools and equipment used are cleaned and maintained, in accordance with company procedures.

4.4 Work area is cleaned, surplus materials are stored, and waste materials are disposed of, in accordance with company procedures.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	20 June 2008	31 December 2025
Rollover and Revision	2	20 May 2011	31 December 2025
Review	3	26 May 2022	31 December 2025

Consent and Moderation Requirements (CMR) reference	0073
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.