

Title	Demonstrate knowledge of the aluminium joinery industry		
Level	2	Credits	8

Purpose	<p>This pre-entry unit standard is for people training to work in the aluminium joinery industry.</p> <p>People credited with this unit standard are able to demonstrate knowledge of: the production, properties, and characteristics of aluminium; the cleaning and maintenance requirements, and procedures for finished aluminium products; the types and uses of aluminium joinery; weather tightness in relation to aluminium joinery; the manufacturing sequence for aluminium joinery products; and identify the key codes of practice for the manufacture of aluminium joinery products.</p>
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Classification	Joinery > Architectural Aluminium Joinery
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Available grade	Achieved
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Explanatory notes

- References relevant to this unit standard include – Architectural Aluminium Association of New Zealand *The Aluminium Window Handbook* (1992), available from the Window Association of NZ (Inc.), PO Box 11 464, Manners Street, Wellington.
- Standards relevant to this unit standard include – New Zealand Standard (NZS) 4211:2008 *Specification for performance of windows*, and NZS 4223 Parts 1 and 2:1985 *Code of practice for glazing in buildings*, available at <http://www.standards.co.nz>.
- Definition
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.
- This unit standard can be assessed against in a simulated situation. This refers to a situation that reflects some elements of commercial realism, but the candidate must be under time pressure.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of the production, properties and characteristics of aluminium.

Evidence requirements

1.1 Extraction and reduction processes are explained in terms of the production of pure aluminium and its alloys.

Range processes include – mining, refining, smelting.

1.2 Physical and mechanical properties of aluminium are identified and related to applications.

Range properties include – chemical, weight, thermal expansion and conductivity, melting point, strength, workability, reflectivity, toxicity.

1.3 Corrosion of aluminium is described in the context of metal integrity and appearance.

Range corrosion includes – galvanic, deposition, pitting, crevice, chemical, atmospheric, any other non-compatible materials.

Outcome 2

Demonstrate knowledge of the cleaning and maintenance requirements, and procedures for finished aluminium products.

Evidence requirements

2.1 Cleaning practices applicable to the finished surface condition of aluminium products are described in terms of company procedures.

Range minor cleaning requirements include – soap, water, brush; moderate cleaning requirements include – solvents, waxed-based polish cleaner.

2.2 Procedures for selecting, mixing, and applying cleaning solutions are described in terms of manufacturers' instructions.

2.3 Procedures for maintaining aluminium joinery products are described in terms of company procedures and manufacturers' instructions.

Outcome 3

Demonstrate knowledge of the types and uses of aluminium joinery.

Evidence requirements

3.1 Residential window and door types are described as specified in the Aluminium Window Handbook (1992).

3.2 Commercial aluminium joinery products are described as specified in the Aluminium Window Handbook (1992).

Outcome 4

Demonstrate knowledge of weathertightness in relation to aluminium joinery.

Evidence requirements

4.1 The mechanisms of water ingress are identified.

Range mechanisms include – wind pressure, capillary action, gravity.

4.2 Methods of managing water ingress are described in terms of company procedures.

Range methods include – dry and wet seals, drainage systems, flashings.

Outcome 5

Demonstrate knowledge of the manufacturing sequence for aluminium joinery products.

Evidence requirements

5.1 Each step in the manufacturing process is described in terms of company procedures.

Range steps include – cutting, preparation, machining, assembling, glazing, revealing.

Outcome 6

Identify the key codes of practice for the manufacture of aluminium joinery products.

Range codes of practice include– NZS 4211:2008, NZS 4223 Parts 1 and 2:1985.

Evidence requirements

6.1 The title and coverage of each key code of practice is described.

6.2 The application of each code of practice to aluminium window and door manufacture is described.

Planned review date	31 December 2020
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	11 August 1993	31 December 2012
Review	2	26 July 2000	31 December 2012
Review	3	24 August 2006	31 December 2012
Rollover and Revision	4	20 May 2011	31 December 2017
Review	5	21 May 2015	N/A

Consent and Moderation Requirements (CMR) reference

0048

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMRs). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Building and Construction Industry Training Organisation info@bcito.org.nz if you wish to suggest changes to the content of this unit standard.