

Title	Laminate straight timber for wood product manufacturing		
Level	3	Credits	8

Purpose	People credited with this unit standard are able to: demonstrate knowledge of hazards and safe work practices when laminating straight timber for wood product manufacturing; demonstrate knowledge of straight timber lamination; assemble dressed straight timber laminations; spread glue and lay up for straight timber lamination; press, stack and handle assembled straight timber laminated product; and monitor production of straight timber laminates and control maintenance requirements.
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Classification	Solid Wood Manufacturing > Wood Product Manufacturing Skills
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Available grade	Achieved
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Guidance Information

- 1 Legislation and references
 Health and Safety at Work Act 2015.
 Resource Management Act 1991.
AS/NZS 1328.1:1998 Glued laminated structural timber – Performance requirements and minimum production requirements.
AS/NZS 1328.2:1998 Glued laminated structural timber – Guidelines for AS/NZS 1328: Part 1 for the selection, production and installation of glued laminated structural timber.
AS 5067-2003 Timber – Non-structural glued laminated – Performance and production requirements.
- 2 Definitions
Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider wood manufacturing industry as examples of best practice.
Workplace procedures refer to documented policies and procedures set by the organisation carrying out the work, and to documented or other directions provided to staff, and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor’s instructions, and procedures to comply with legislative and local body requirements relevant to the wood manufacturing sector.

- 3 Assessment information
All activities and evidence must be in accordance with workplace procedures and accepted industry practice.
- 4 Recommended unit standard for entry: Unit 15056, *Demonstrate knowledge of the principles of laminating in wood product manufacturing.*

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of hazards and safe work practices when laminating straight timber for wood product manufacturing.

Performance criteria

- 1.1 Hazards associated with laminating straight timber are identified and actions to be taken to manage the hazards are described.
- 1.2 Safe work practices associated with laminating straight timber are identified and applied.
- Range practices may include but are not limited to – isolation procedures, lock-outs, emergency stops, machine guarding, the wearing of appropriate safety equipment.

Outcome 2

Demonstrate knowledge of straight timber lamination.

Performance criteria

- 2.1 Lamination feedstock requirements are identified and justified in accordance with AS/NZS1328.2:1998 and/or customer requirements.
- Range may include but is not limited to – moisture content percentage (MC%), dressing tolerances, within board dressing variations, appearance or structural grade, time since sawing or dressing, surface finish.
- 2.2 Laminating requirements are identified and justified in accordance with manufacturer's recommendations.
- Range glue storage, glue mix, glue spread, assembly time, clamp (press) pressure, clamp time.
- 2.3 Cure requirements are identified in accordance with the manufacturer's specifications.
- Range cure temperature, cure time, post cure time.

2.4 Glue bond durability and strength is described in accordance with manufacturer's recommendations.

Range adhesive storage, glue mixing, glue spread.

Outcome 3

Assemble dressed straight timber laminations.

Performance criteria

3.1 Lamination dimensions and straightness are checked for consistency and conformance to job specifications.

3.2 Surface quality and cleanliness are checked to enable required glue adhesion.

3.3 Laminations are laid up in order for assembly.

3.4 Laminations are assembled to meet company press load requirements.

Outcome 4

Spread glue and lay up for straight timber lamination.

Performance criteria

4.1 Glue spread is adjusted.

Range avoidance of excessive squeeze-out or glue starvation, glue supplier's recommendations in terms of grams per square metre.

4.2 Glue supply is maintained for minimum downtime.

Outcome 5

Press, stack, and handle assembled straight timber laminated product.

Performance criteria

5.1 Straight timber laminated product is press assembled.

Range assembly time, clamp pressure, clamp (press) time, curing temperature.

5.2 Partially cured laminated product are stacked and handled.

Range time, temperature.

Outcome 6

Monitor production of straight timber laminates and control maintenance requirements.

Performance criteria

- 6.1 Operating faults are identified, and corrective action is taken.
- 6.2 Control information is entered into any fitted control device and output data is monitored and interpreted or control data is recorded manually.
- 6.3 Maintenance and cleaning of the laminating equipment is carried out.

Planned review date	31 December 2024
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 May 1995	31 December 2015
Review	2	10 February 1999	31 December 2015
Revision	3	14 March 2000	31 December 2015
Revision	4	15 December 2000	31 December 2015
Review	5	18 December 2006	31 December 2015
Review	6	20 March 2014	N/A
Review	7	22 October 2020	N/A

Consent and Moderation Requirements (CMR) reference	0013
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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 Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.