



Australian Government

FWPTMM4214 Test laminated wood product

Release: 1

FWPTMM4214 Test laminated wood product

Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 8.0.

Application

This unit of competency describes the skills and knowledge required to collect, prepare and test samples of laminated wood products. The unit includes interpreting test results for the identification of problems in production, and making necessary changes to processes.

The unit applies to individuals who are engaged in the production of laminated wood products.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Timber Manufactured Products (TMM)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for testing laminated wood product	1.1 Determine job requirements from work order or instruction and, where required, seek clarification from appropriate personnel 1.2 Confirm workplace health and safety and environmental protection practices and/or procedures for the task, including use of personal protective equipment

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Confirm legislation, standards and codes of practice relevant to testing laminated wood product 1.4 Identify and assess hazards and take actions to mitigate risks related to testing operations 1.5 Consult appropriate personnel to ensure that work is coordinated effectively with others in the workplace 1.6 Select tools and equipment for testing operations, and check for serviceability according to workplace procedures 1.7 Collect, label and prepare test samples according to workplace procedures
2. Calibrate equipment for testing laminated wood product	2.1 Set up equipment for testing laminated wood product according to workplace procedures and/or relevant Australian Standards 2.2 Calibrate test equipment according to manufacturer instructions, workplace procedures and/or relevant Australian Standards 2.3 Record calibration results according to workplace procedures
3. Conduct test on laminated wood product and analyse test results	3.1 Test sample according to workplace procedures and/or relevant Australian Standards 3.2 Collate information on test results 3.3 Analyse and record test results 3.4 Store samples according to workplace procedures
4. Finalise test	4.1 Communicate test results according to workplace procedures 4.2 Report sub-standard test results, assist with the identification of production problems and recommend corrective actions 4.3 Modify test sampling process in response to identified problems and production changes 4.4 Record and report testing outcomes

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret routine information from industry guides and standard references on testing techniques for laminated wood products
Writing	Complete labels legibly and accurately with correct details of sample
Oral communication	- Ask open and closed questions and use active listening techniques to clarify contents of work orders - Provide oral reports on testing activities
Numeracy	- Measure quantities and dimensions of samples - Perform routine calculations and interpret numerical results of testing procedures

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPTMM4214 Test laminated wood product	FWPTMM4204 Sample and test products to specifications	Unit redeveloped to address a relevant skill or task that is required by industry	Not equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPTMM4214 Test laminated wood product

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has conducted two of the following tests on two samples of laminated wood product each:

- glue spread test
- shear test
- durability test.

In performing these tasks, the individual has:

- complied with workplace health and safety and environmental protection practices and/or procedures, including use of personal protective equipment (PPE) and safe disposal of waste materials
- complied with legislation, standards and codes of practice relevant to testing laminated wood product
- selected and calibrated equipment for testing operations
- collected, labelled and prepared samples
- conducted the tests
- recorded and reported test results
- analysed test results to assist with the identification of production problems
- recommended corrective actions, as required.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- key requirements of legislation, standards and codes of practice relevant to testing laminated wood product
- lamination requirements in the production of laminated timber products, including:

- lamination feedstock requirements – moisture content, dressing tolerance, grade, time since sawing or dressing, surface finish
- laminating requirements – glue storage, glue mix, glue spread, assembly time, clamp (press) time and pressure
- cure requirements – temperature, time, post-cure time
- influences on glue bond durability and strength
- glue spread requirements in laminated timber product processes, including:
 - effects of over and under glue spread on bond strength
 - frequency of glue spread tests
 - processes for conducting glue spread tests
 - glue spread rate is monitored and remedial action is taken
- test procedures and purpose for laminated timber product, including:
 - glue spread test
 - shear test
 - durability test
- failures in laminated timber product characteristics determined by test results, including:
 - glue failure
 - shallow wood fibre failure
 - wood fibre failure
 - sustainable load
 - breaking load – Modulus of Elasticity, Modulus of Rupture
- equipment for testing laminated wood product
- techniques and reasons for calibrating testing equipment for laminated wood product
- Australian Standards relevant to laminated wood products, including requirements for sampling and equipment set-up and calibration
- hazards associated with selection, labelling and physical testing of laminated wood product, including:
 - moving equipment
 - flying debris
 - rotating saw blades
- problems associated with testing process for laminated wood product, including:
 - calibration of test equipment
 - test accuracy
 - sample quality
 - faulty material
 - defects
- workplace procedures specific to sampling and testing laminated wood product, including:
 - health and safety, including isolation procedures, lock-outs, emergency stops, machine guarding and wearing of appropriate PPE
 - environmental protection, including disposing, recycling and reusing timber and other waste

- use of testing equipment
- sampling and testing processes
- communication reporting lines
- recording and reporting on test process and test results.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a timber product manufacturing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - laminated wood products
 - test equipment
 - personal protective equipment required for testing laminated wood product
- specifications:
 - workplace health and safety and environmental protection policies and/or procedures applicable to laminated wood product testing operations
 - workplace procedures for laminated wood product testing operations
 - workplace procedures for calibration of testing equipment.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>