

## Modification history

Release	Comments
Release 2	This version released with FWP Forest and Wood Products Training Package Version [4.0]  Version created to update workplace health and safety requirements in performance criteria and clarify intent of unit and assessment requirements.
Release 1	This version replaces equivalent unit FPICOT3229B Mechanically stress grade panels, which was first released with FPI11 Forest and Forest Products Training Package Version 2.2.  This is the first release of this unit in the new standards format.

UNIT CODE	FWPCOT3229 Mechanically stress grade panels
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to <u>operate mechanical stress-graders or high speed mechanical graders to mechanically stress-grade test engineered wood panels with mechanical stress-graders and high-speed mechanical graders to test panels</u> for strength and durability- <u>in a forest products factory manufacturing facility against set grades. Work also -involves operator maintenance.</u></p> <p>The unit applies to individuals who mechanically stress grade <u>timber engineered wood panels in a forest products factory setting and includes operator maintenance. Operators generally work under broad or limited direction to complete routine activities related to own work and take responsibility for their work.</u></p> <p><u>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.</u></p> <p>No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Sawmilling and Processing Timber Manufactured Products Wood Panel Products

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 stress-grading <u>engineered wood panels</u>	<p>1.1 Review work order and where required check with appropriate personnel</p> <p><u>1.2 Follow workplace health and safety requirements, environmental protection practices and emergency procedures and use personal protective equipment (PPE) in line with operational requirements throughout operation</u></p> <p><u>1.3 Identify and report hazards, accidents, incidents and/or near misses in line with operational requirements and health and safety legislative requirements to maintain safe work practices.</u></p> <p><del>1.2 Select appropriate personal protective equipment and check for operational effectiveness</del></p> <p>1.3 Obtain type and quantity of <u>engineered wood</u> panels for stress grading from storage location</p> <p><del>1.4 Plan stress-grading process in line with work order</del></p>

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Set up equipment	2.1 Use equipment in line with organisational safety procedures, manufacturer instructions and environmental protection practices 2.2 Complete pre start-up checks on equipment to ensure operational effectiveness 2.3 Set up spray guns or branding rolls for use in line with work order 2.4 Complete calibration process using verification panels and set grade thresholds in line with organisational procedures
3. Stress grade <u>engineered wood</u> panels	3.1 Complete automatic grading process, monitor and adjust material flow to machine 3.2 Monitor machinery to ensure consistent grade marking and panel appearance in line with industry standards 3.3 Withdraw samples for independent testing and prepare according to testing procedures
4. Conduct operator maintenance	4.1 <u>Lock out equipment</u> <del>Follow organisational</del> <u>in line with workplace health and safety procedures</u> <del>to lock out equipment</del> 4.2 Check and clean photo-electric cells and reflectors in line with environmental protection practices 4.3 Check and refill spray guns or branding rolls 4.4 Adjust and maintain mechanical stress grade rollers, auto-feed and load pressure in line with manufacturer's recommendations 4.5 Keep stress-grading area clear of dust and debris in line with <u>organisational workplace health and safety</u> procedures 4.6 Record and report production outcomes, equipment faults and maintenance requirements to appropriate personnel

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<b>Foundation Skills</b>	
<i>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.</i>	
<b>Skill</b>	<b>Description</b>
Numeracy	<ul style="list-style-type: none"> <li>identify quantities of <b>engineered wood</b> panels required within work orders and count numbers of panels to be graded</li> <li>calibrate mechanical stress grading equipment to specified grade thresholds</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>ask questions and actively listen to clarify contents of work orders where necessary</li> </ul>
Reading	<ul style="list-style-type: none"> <li>interpret:                             <ul style="list-style-type: none"> <li>workplace health and safety and other organisational procedures</li> <li>work orders</li> <li>manufacturers' instructions and maintenance recommendations</li> </ul> </li> </ul>
Writing	<ul style="list-style-type: none"> <li>complete accurate basic records for production outcomes, equipment faults and maintenance requirements</li> </ul>
Plan and organise	<ul style="list-style-type: none"> <li>logically sequence the stages of preparation and stress grading work using work order to guide activities</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
FWPCOT3229 Mechanically stress grade panels	FWPCOT3229 Mechanically stress grade panels	Updated workplace health and safety requirements in performance criteria and clarified intent of unit and assessment requirements.	Equivalent unit

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

<b>TITLE</b>	<b>Assessment requirements for FWPCOT3229 Mechanically stress grade panels</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements, performance criteria and foundation skills of this unit. There must be evidence that, on at least one occasion, the individual has:</p> <ul style="list-style-type: none"> <li>• operated a mechanical stress grading machine, in line with work orders, to grade the following types of <u>engineered wood</u> panels:             <ul style="list-style-type: none"> <li>• laminated veneer</li> <li>• medium density fibreboard</li> <li>• chipboard</li> <li>• fibreboard</li> <li>• plywood</li> </ul> </li> <li>• completed operator maintenance on the mechanical stress grading equipment.</li> </ul>	
<b>Knowledge Evidence</b>	
<p>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:</p> <ul style="list-style-type: none"> <li>• <u>health and operational hazards or risks related to mechanical stress grading of engineered wood panels as identified through risk assessments, manufacturer technical information, regulations and industry health and safety guides</u></li> <li>• organisational procedures specific to mechanically stress grading <u>engineered wood</u> panels:             <ul style="list-style-type: none"> <li>• workplace health and safety with particular emphasis on equipment lock out, use of personal protective equipment and handling hazardous substances</li> <li>• <u>use of equipment</u></li> <li>• communication reporting lines</li> <li>• recording and reporting production outcomes, equipment faults and maintenance requirements</li> </ul> </li> <li>• environmental protection practices for forest products factory settings:             <ul style="list-style-type: none"> <li>• reducing water and energy use</li> <li>• cleaning plant, tools and equipment</li> <li>• disposing of hazardous substances.</li> </ul> </li> <li>• typical flow of material supply in and out of the grading area</li> <li>• typical work flow processes and techniques used to mechanically stress grade <u>engineered wood</u> panels</li> <li>• range of industry standard strength grades and thresholds <u>for engineered wood panels</u> and applicable terminology</li> <li>• markings used on <u>engineered wood</u> panels to identify grades</li> <li>• reason for independent testing of <u>engineered wood</u> panels and processes for sampling and preparing panels for testing</li> <li>• purpose, features and operation of equipment used to mechanically stress grade panels:             <ul style="list-style-type: none"> <li>• mechanical stress-graders or high speed mechanical graders</li> <li>• spray guns</li> <li>• branding rolls</li> <li>• verification panels</li> </ul> </li> <li>• methods used to:             <ul style="list-style-type: none"> <li>• calibrate equipment to grades using verification panels</li> <li>• clean and maintain mechanical stress grading equipment.</li> </ul> </li> </ul>	
<b>Assessment Conditions</b>	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions:             <ul style="list-style-type: none"> <li>• skills must be demonstrated in an environment that accurately represents workplace conditions</li> </ul> </li> <li>• resources, equipment and materials:             <ul style="list-style-type: none"> <li>• mechanical stress-graders or high speed mechanical graders</li> <li>• spray guns</li> <li>• branding rolls</li> </ul> </li> </ul>	

<b>Assessment Conditions</b>	
<ul style="list-style-type: none"> <li>• maintenance tools and equipment for mechanical stress graders</li> <li>• verification panels</li> <li>• consumable dye</li> <li>• personal protective equipment suitable for mechanically stress grading panels</li> <li>• a diverse range of commercial panels including laminated veneer, medium density fibreboard, chipboard, fibreboard, plywood</li> <li>• specifications:                             <ul style="list-style-type: none"> <li>• manufacturer instructions for use and maintenance of equipment</li> <li>• work order with specific instructions for types and quantities of <u>engineered wood</u> panels to be graded</li> <li>• <u>template documents for recording production outcomes, equipment faults and maintenance requirements</u></li> <li>• <u>workplace health and safety and emergency procedures</u></li> <li>• <u>environmental protection procedures</u></li> <li>• organisational procedures for mechanically stress grading <u>engineered wood</u> panels.</li> </ul> </li> </ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	
<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47">https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47</a>