



Australian Government

FWPCOT3338 Identify glues and gluing systems used in production of wood products

Release: 1

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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 assess the types and applications of glues and gluing systems used in the production of wood products.

The unit applies to individuals who are engaged in the production of 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

Common Technical (COT)

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. Research types, properties and applications of glues used in production of wood products	1.1 Identify glue types by exposure categories, end-use, preparation and supplier product name 1.2 Identify hazards associated with handling, transporting, storing and disposing of glues 1.3 Identify legislation, standards and codes of practice relevant to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	gluing operations 1.4 Determine safe practices for handling, transporting, storing and disposing of glue, glue waste and containers 1.5 Assess factors that influence shelf-life of glues, and work practices that maximise shelf-life of glues 1.6 Investigate factors that influence glue application and bonding 1.7 Identify glue ingredient specifications used in the workplace, and actions to be taken with out-of-specification ingredients
2. Investigate gluing systems used in production of wood products	2.1 Identify types, functions and components of semi-automatic and automatic systems for dosing, mixing and applying glues 2.2 Identify operating parameters and processing capacity of gluing systems
3. Identify glue testing procedures used in production of wood products	3.1 Identify types and purpose of glue testing procedures 3.2 Identify outcomes of glue testing and action to be taken if glue is out-of- specification
4. Determine causes of adhesion failures in production of wood products	4.1 Identify causes of adhesion failure 4.2 Identify physical characteristics that indicate likely cause of adhesion failure 4.3 Verify process for determining adhesion failure

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	Extract routine information from industry guides and standard references on glues and gluing systems

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPCOT3338 Identify glues and gluing systems used in production of wood products	FWPWPP3209 Prepare resin and additives	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 FWPCOT3338 Identify glues and gluing systems used in production of wood products

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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 researched glues and gluing systems used in production of wood products and documented the following:

- properties and applications of two glues selected from the following different types of glues:
 - synthetic or animal-based adhesives
 - rubber-based adhesives
 - polyvinyl acetate
 - epoxy resins
 - formaldehydes – resorcinol formaldehyde (RF), phenol resorcinol formaldehyde (PRF), melamine urea formaldehyde (MUF)
 - polyurethanes
- functions, components, operating parameters and processing capacity of one semi-automatic or one automatic system for dosing, mixing and applying glues that is used in the production of wood products
- legislation, standards and codes of practice relevant to gluing operations
- glue testing procedure used for checking one of the following features of one type of glue:
 - mix quantities
 - setting speed
 - how weather conditions may be affecting the process
- likely cause of one adhesion failure.

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:

- types, properties, preparation and applications, at a basic level of understanding, of glues used in production of wood products, including:
 - synthetic or animal-based adhesives
 - rubber-based adhesives
 - polyvinyl acetate
 - epoxy resins
 - formaldehydes – RF, PRF, MUF
 - polyurethanes
- key requirements of legislation, standards and codes of practice relevant to gluing operations
- exposure categories of glue types – internal, exterior protected, exterior exposed
- commercial product names of glue types used in production of wood products
- safe practices for handling, transporting, storing and disposing of glue, glue waste and containers
- shelf-life of glues used in production of wood products, including:
 - factors that influence shelf-life of glues – temperature, humidity, type of glue, viscosity, mix time, excessive hardener
 - work practices that maximise shelf-life – stock rotation, temperature control, and airtight containers
- factors that influence glue application and bonding in the production of wood products, including:
 - shelf-life
 - storage temperature
 - accurate measurement of ingredients
 - accurate mixing
 - correct glue spread
 - correct open assembly time
- glue ingredient specifications for the production of wood products
- health and safety hazards or risks related to glues and additives used in the production of wood products, as identified through risk assessments, manufacturer technical information, regulations and industry health and safety guides
- methods used in the production of wood products to:
 - test samples
 - safely store glues
- types, functions, components, accessories and capacity of semi-automatic and automatic systems used in the production of wood products for dosing, mixing and applying glues
- sources of information on systems for dosing, mixing and applying glues
- reasons for using glue dosing, mixing and application systems in the production of wood products, including:
 - speed
 - controlling accuracy
 - consistency of product dimensions

- reducing mechanical injury
- causes of adhesion failure in the production of wood products.

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 processing plant, a timber product manufacturing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - internet access and computer software and hardware for accessing technical information on glues and gluing systems used in the production of wood products
- specifications:
 - legislation, standards and codes of practice relevant to wood products gluing operations
 - industry guides and standard references on glues and gluing systems used in the production of wood products.

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

Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>