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 FPIWPP3219B Blend and test binding mixes, 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	FWPWPP3219 Blend and test binding mixes	
Application	This unit of competency describes the skills and knowledge required to blend and test binding mixes for use in the forming used in the production of of chip, flake and fibre boardsengineered wood panels. Work also is factory completed in a forest products setting and includes involves operator maintenance.	
	The unit applies to individuals who work as production operators and technicians in an engineered wood panel facility. Operators generally work under broad or limited direction to complete routine activities related to own work and take responsibility for their work.	
	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. who blend and test binding mixes in a forest and wood products setting and includes operator maintenance.	
	No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.	
Prerequisite Unit	Nil	
Unit Sector	Wood Panel Products	

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
Prepare for blending binding mix	1.1 Review work order and where required check with appropriate personnel
	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 blending operation
	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
	1.2 Select appropriate personal protective equipment and check for operational effectiveness
	1.3-4 Obtain type and quantity of binding mix for blending from storage 1.4-5 Select and plan blending process in line with work order

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
2. Set up equipment and blend binding mix	2.1 Use equipment in line with organisational workplace health and safety procedures, manufacturer's instructions and environmental protection practices 2.2 Set blend cycles in line with work order 2.3 Measure ingredients and additives and blend to ensure minimum wastage 2.4 Transfer blend to appropriate storage location or production equipment through transfer lines without contamination
3. Test binding mix results	2.5 Monitor rate of including additives and where required adjust pumps 3.1 Test blend samples regularly, checking tack and adhesion properties 3.2 Interpret test results and where required adjust blend to achieve desired properties 3.3 Reject and dispose of incorrect blend in line with environmental protection practices
4. Maintain and clean equipment	4.1 Clean blending, storage and transfer equipment in line with organisational workplace health and safety procedures 4.2 Turn off pumps and flush equipment in line manufacturer instructions. 4.3 Dispose of excess blended material and additives in line with environmental protection practices 4.4 Store equipment and ingredients in line with organisational workplace health and safety procedures 4.5 Record and report production outcomes and equipment faults to appropriate personnel



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.

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Skill	Description	
Numeracy	 identify quantity of ingredients to meet work order production requirements and count amounts calculate routine mixing ratios for blends interpret numerical data from binding mix test samples 	
Oral communication	ask questions and actively listen to clarify contents of work orders	
Reading	 interpret: workplace health and safety and other organisational procedures work orders safety data sheets manufacturer instructions 	
Writing	 complete accurate basic records for blending outcomes and equipment faults 	
Plan and organise	 efficiently and logically sequence the stages of preparation, production and maintenance using work order to guide activities 	
Problem-solving	 identify and dispose of incorrect and excess materials recognise faulty equipment and resolve by reporting or rectifying 	
Technology	 select and use relevant personal protective equipment for blending and testing mixes efficiently and safely operate blending systems 	

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
FWPWPP3219 Blend and test binding mixes	FWPWPP3219 Blend and test binding mixes	Updated workplace health and safety requirements in performance criteria and clarified intent of unit and assessment requirements	Equivalent unit

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

TITLE Assessment requirements for FWPWPP3219 Blend and test binding mixes

Performance Evidence

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:

- followed workplace health and safety requirements and environmental protection procedures for blending binding mix used in the production of engineered wood products
- prepared binding mixes in line with individual work orders that prescribe varying quantities for each job; Binding binding mixes are to be prepared from different types of materials which includes:
 - chips
 - flakes
 - fibre
- across the above jobs, demonstrated use of water and resin based glues;
- for each of the above jobs, taken samples and test mix for types of properties which includes:
 - mix quantities
 - viscosity
 - colour
 - spread
 - tack
 - · cured bond strength
 - setting speed
 - how weather conditions may be affecting the process

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:

- health and operational hazards or risks related to blending binding mix for the production of engineered wood products as identified through risk assessments, manufacturer technical information, regulations and industry health and safety guides
- organisational procedures specific to blending and testing mixes:
 - workplace health and safety with particular emphasis on equipment lock out, emergency procedures, use of personal protective equipment and handling hazardous substances
 - communication reporting lines
 - recording and reporting production outcomes and equipment faults
- environmental protection practices for blending and testing binding mixes:
 - · reducing water and energy use
 - cleaning plant, tools and equipment
 - disposing of hazardous substances
- storage layout and categories for:
 - raw materials
 - finished mixes
- typical flow of material supply in and out of the mixing area
- typical work flow processes for blending and testing binding mixes
- properties, at a basic level of understanding, of ingredients and their uses:
 - rubber based adhesives
 - poly vinyl acetate
 - · epoxy resins and formaldehydes
 - chips
 - · flakes or fibre
 - hardeners
 - softeners
 - accelerants
 - decelerators
 - dyes
- effects of weather conditions on blending processes
- methods used to:

Knowledge Evidence

- blend binding mix
- test samples of mix
- safely store glue and additives
- purpose, features, operation and basic non-specialist maintenance of mixing systems used to blend binding mix:
 - mixers with manually controlled feed
 - mixers with pre-programmed mix quantities.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - blending system with transfer pumps
 - · personal protective equipment suitable for blending and testing mixes
 - · ingredients which must include at least one of the following:
 - rubber based adhesives
 - · poly vinyl acetate
 - · epoxy resins and formaldehydes
 - chips
 - · flakes or fibre
 - hardeners
 - softeners
 - accelerants
 - decelerators
 - dves
- · specifications:
 - recipes for mixing ingredients
 - manufacturer safety data sheets, instructions for equipment use, recommendations for maintaining equipment
 - work order with specific instructions for blending binding mixes
 - template documents for recording production outcomes and equipment faults
 - workplace health and safety and emergency procedures
 - environmental protection procedures
 - organisational procedures for blending and testing mixes
- relationships:
 - relevant personnel for the purposes of communicating information.

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.education.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-
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