



**Australian Government**

# **FWPWPP3219 Blend and test binding mixes**

**Release: 2**

## FWPWPP3219 Blend and test binding mixes

### Modification History

| Release   | Comments                                                                                                                                                                     |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Release 2 | This version released with FWP Forest and Wood Products Training Package Version 4.0.                                                                                        |
| 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. |

### Application

This unit of competency describes the skills and knowledge required to blend and test binding mixes used in the production of engineered wood panels.

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 their 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.

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

### Pre-requisite Unit

Nil

### Unit Sector

Wood Panel Products

### 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 blending                          | 1.1 Review work order, workplace health and safety requirements, environmental protection practices and emergency procedures for |

| <b>Elements</b>                                  | <b>Performance Criteria</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                |
| binding mix                                      | blending binding mix and, where required, check with appropriate personnel<br><br>1.2 Identify and report hazards and use personal protective equipment according to workplace requirements and health and safety legislation to maintain safe work practices<br><br>1.3 Obtain the type and quantity of binding mix for blending from storage<br><br>1.4 Select and plan blending process according to work order                                                                                    |
| 2. Set up equipment and blend binding mix        | 2.1 Use equipment according to workplace health and safety procedures, manufacturer instructions and environmental protection practices<br><br>2.2 Set blend cycles according to work order<br><br>2.3 Measure ingredients and additives and blend to ensure minimum wastage<br><br>2.4 Transfer blend to appropriate storage location or production equipment through transfer lines without contamination<br><br>2.5 Monitor rate of including additives and, where required, adjust pumps          |
| 3. Test binding mix results                      | 3.1 Test blend samples regularly, checking tack and adhesion properties<br><br>3.2 Interpret test results and, where required, adjust blend to achieve desired properties<br><br>3.3 Reject and dispose of incorrect blend according to environmental protection practices                                                                                                                                                                                                                            |
| 4. Maintain and clean equipment                  | 4.1 Clean blending, storage and transfer equipment according to workplace health and safety procedures<br><br>4.2 Turn off pumps and flush equipment according to manufacturer instructions<br><br>4.3 Dispose of excess blended material and additives according to environmental protection practices<br><br>4.4 Store equipment and ingredients according to workplace health and safety procedures<br><br>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.*

| Skill                      | Description                                                                                                                                                                                                                                                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading                    | <ul style="list-style-type: none"> <li>Interpret safety data sheets</li> </ul>                                                                                                                                                                                            |
| Numeracy                   | <ul style="list-style-type: none"> <li>Identify the quantity of ingredients to meet work order production requirements, and counts amounts</li> <li>Calculate routine mixing ratios for blends</li> <li>Interpret numerical data from binding mix test samples</li> </ul> |
| Navigate the world of work | <ul style="list-style-type: none"> <li>Understand main tasks, responsibilities and boundaries of own role</li> </ul>                                                                                                                                                      |
| Interact with others       | <ul style="list-style-type: none"> <li>Use modes of communication suitable for the purpose to confirm and clarify understanding</li> </ul>                                                                                                                                |
| Get the work done          | <ul style="list-style-type: none"> <li>Recognise and respond to routine problems</li> </ul>                                                                                                                                                                               |

## Unit Mapping Information

| Code and title current version                          | Code and title previous version                         | Comments                                                                                                                                                    | Equivalence status |
|---------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| FWPWPP3219<br>Blend and test binding mixes<br>Release 2 | FWPWPP3219<br>Blend and test binding mixes<br>Release 1 | Updated industry terminology, workplace health and safety requirements and foundation skills; clarified the intent of the unit and assessment requirements. | Equivalent unit    |

## 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 FWPWPP3219 Blend and test binding mixes

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### Performance Evidence

An individual demonstrating competency in this unit must satisfy all of the elements and performance criteria 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 panels
- prepared binding mixes for one or more of the following types of materials according to individual work orders that prescribe varying quantities of ingredients:
  - chips
  - flakes
  - fibre
- demonstrated use of water- and resin-based glues
- taken samples and test mix for types of properties that include:
  - 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 safety 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
- workplace procedures specific to blending and testing mixes:
  - health and safety, with particular emphasis on equipment lockout, emergency procedures, use of personal protective equipment (PPE) and handling hazardous substances according to safety data sheets
  - use of equipment for blending binding mix
  - 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 workflow processes for blending and testing binding mixes
- properties, at a basic level of understanding, of ingredients and their uses:
  - rubber-based adhesives
  - polyvinyl acetate
  - epoxy resins and formaldehydes
  - chips
  - flakes or fibre
  - hardeners
  - softeners
  - accelerants
  - decelerators
  - dyes
- effects of weather conditions on blending processes
- methods used to:
  - blend binding mix
  - test samples of the 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 for binding mix including chips, flakes or fibre
- specifications:
  - recipes for mixing ingredients
  - manufacturer safety data sheets, instructions for equipment use and recommendations for maintaining equipment
  - work order with specific instructions for blending binding mixes
  - template documents for recording production outcomes and equipment faults
  - workplace procedures for blending and testing mixes, including health and safety and emergency procedures and environmental protection procedures.

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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