



Australian Government

Department of Education, Employment and Workplace Relations

FPIWPP3219B Blend and test binding mixes

Release: 1

FPIWPP3219B Blend and test binding mixes

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit describes the outcomes required to blend and test binding mixes for use in the forming of chip, flake and fibre boards General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication This unit replaces FPIWPP3219A Blend and test binding mixes
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Application of the Unit

Application of the unit	The unit involves blending and testing binding mixes in a forest products factory setting The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for blending	1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative and organisational requirements relevant to blending and testing binding mixes are identified and followed 1.2. Work order is reviewed and checked with appropriate personnel 1.3. Type and quantity of ingredients to form the binding mix to be blended is acquired from storage 1.4. Equipment is selected appropriate to work requirements and checked for operational effectiveness in line with manufacturer's recommendations 1.5. Blending process is selected and planned in line with site procedures 1.6. Communication with others is established and maintained in line with OHS requirements
2. Blend and test binding mix	2.1. Pre start-up checks are carried out on equipment in line with site requirements 2.2. Blend cycles are set in line with organisational requirements 2.3. Ingredients and additives are measured and blended ensuring minimum wastage in line with site and environmental requirements 2.4. Blend is transferred to appropriate storage location or production equipment without contamination through transfer lines 2.5. Addition rate of additives are monitored and pumps adjusted 2.6. Samples of blend are regularly taken for testing to check tack and adhesion properties in line with standard operating procedures 2.7. Test results are interpreted and adjustments made to achieve desired properties 2.8. Sub-standard blend is rejected and disposed of in line with site procedures and environmental regulations 2.9. Blending process and equipment faults are recorded and reported to the appropriate personnel
3. Maintain and clean equipment	3.1. Blending, storage and transfer equipment is cleaned to organisation requirements 3.2. Pumps are turned off and equipment flushed in line

ELEMENT**PERFORMANCE CRITERIA**

- with organisational standard operating procedures
- 3.3. Excess blended material and additives are disposed of in line with statutory requirements
- 3.4. Equipment and ingredients are stored in line with statutory requirements

Required Skills and Knowledge**REQUIRED SKILLS AND KNOWLEDGE**

This describes the essential skills and knowledge and their level required for this unit.

Required skills

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; efficiently and safely blend and test binding mixes
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to accurately record and report workplace information, and maintain documentation
- Numeracy skills sufficient to estimate, measure and calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults and demonstrate appropriate response procedures

Required knowledge

- Applicable Commonwealth, State or Territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for blending and testing binding mixes
- Environmental protection requirements, including the safe disposal of waste material, the safe use and storage of chemicals, and the cleaning of plant, tools and equipment
- Organisational and site standards, requirements, policies and procedures for blending and testing binding mixes
- Environmental risks and hazards
- Blending techniques and ingredients
- Characteristics of ingredients and additives
- Weather conditions affecting blending conditions
- Blending operations and maintenance procedures
- Storage systems and labelling

REQUIRED SKILLS AND KNOWLEDGE

- Established communication channels and protocols
- Problem identification and resolution strategies and common fault finding techniques
- Types of tools and equipment and procedures for their use, operation and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently blend and test binding mixes within organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements of this unit and include demonstration of:

- following applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice relevant to blending and testing binding mixes
- following organisational policies and procedures relevant to blending and testing binding mixes
- blending and testing binding mixes in line with the work order and within prescribed organisational requirements
- conducting blending operations and maintenance procedures
- storing batches of binding mix in line with organisational requirements and OHS regulations
- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Context of and specific resources for assessment

EVIDENCE GUIDE

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge
- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

RANGE STATEMENT

OHS requirements:

are to be in line with applicable Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures, and may include:

- personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- manual handling including shifting, lifting and carrying
- legislation
- organisational policies and procedures
- workplace practices

Environmental requirements may include:

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- award and enterprise agreements
- industrial relations
- Australian Standards
- confidentiality and privacy
- OHS
- the environment
- equal opportunity
- anti-discrimination
- relevant industry codes of practice
- duty of care

Organisational requirements may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement

RANGE STATEMENT

- processes and standards
 - OHS, emergency and evacuation procedures
 - ethical standards
 - recording and reporting requirements
 - equipment use and maintenance and storage requirements
 - environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)
- Work order** is to include:
- instructions for the blending of binding mixes
- and may include:
- type
 - quantity
 - setting rate
 - mixing percentages
 - additives
 - hardness
 - instructions for the environmental monitoring of work and procedures
 - environmental care requirements relevant to the work
- Appropriate personnel** may include:
- supervisors
 - suppliers
 - clients
 - colleagues
 - managers
- Binding mix** may include:
- chips
 - flakes
 - fibre
 - glue
 - additives
 - other enterprise specified ingredients
- Storage locations** may include:
- drums kept in flammable goods storage areas
 - plastic tubs kept in flammable goods storage areas
- Equipment** may include:
- blenders with manually controlled feed
 - mixers with pre-programmed mix quantities
 - cycles
 - transfer pumps
 - valves

RANGE STATEMENT

Blending:

- usually includes mixing a base ingredient with a hardener to aid setting plus any specified additives to specified quantities
- can occur manually or mechanically

Communication may include:

- verbal and non-verbal language
- constructive feedback
- active listening
- questioning to clarify and confirm understanding
- use of positive, confident and cooperative language
- use of language and concepts appropriate to individual social and cultural differences
- control of tone of voice
- body language

Pre start-up checks

are conducted to ensure:

- equipment has been set-up correctly
- systems are performing accurately
- equipment is operating to optimum performance

Ingredients may include:

synthetic or animal based adhesives such as:

- casein
- rubber based adhesives
- poly vinyl acetate
- epoxy resins and formaldehydes
- chips
- flakes or fibre
- hardeners
- softeners
- accelerants
- decelerators
- dyes

Additives may include:

agents which:

- harden
- soften
- accelerate or decelerate glue or resin setting

Transfer lines may include:

- transfer of ingredients to the blenders
- transfer of the binding mix to storage or production

RANGE STATEMENT

Testing is to include:

regular sampling of the blending mix to check:

- mix quantities
- ingredient characteristics
- viscosity
- colour
- spread
- tack
- cured bond strength
- setting speed (is it going off)
- how weather conditions may be affecting the process

Records and reports may include:

- binding and testing results
- quantities produced
- condition changes
- production difficulties
- storage locations
- quality outcomes
- hazards
- incidents
- equipment malfunctions

and may be:

- manual
- using a computer-based system or other appropriate organisational communication system

Unit Sector(s)

Unit sector

No sector assigned

Co-requisite units

Co-requisite units

Co-requisite units

Competency field

Competency field Wood Panel Products