



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **FPICOT3208B Test strength of joints**

**Release: 1**

## **FPICOT3208B Test strength of joints**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit descriptor**

This unit describes the outcomes required to collect samples and prepare, test and report on the strength of joints. The unit includes interpreting testing procedure results for use in identifying production problems and identifying necessary changes to processes

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 FPICOT3208A Test strength of joints

### **Application of the Unit**

#### **Application of the unit**

The unit involves testing strength of joints 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

### **Licensing/Regulatory Information**

Refer to Unit Descriptor

### **Pre-Requisites**

Not Applicable

## 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 testing | <ul style="list-style-type: none"><li>1.1. Applicable <b>occupational health and safety</b> (OHS), <b>environmental</b>, <b>legislative</b> and <b>organisational requirements</b> relevant to testing the strength of <b>joints</b> are identified and followed</li><li>1.2. <b>Test</b> specifications and equipment are identified, obtained and <b>checked</b> in line with work orders, site standards and procedures</li><li>1.3. Test samples are collected, <b>prepared</b> and recorded in line with quality assurance procedures</li><li>1.4. Potential <b>problems</b> are identified and resolved in line with site procedures</li><li>1.5. <b>Communication</b> with others is established and maintained in line with OHS requirements</li></ul> |
| 2. Test samples        | <ul style="list-style-type: none"><li>2.1. Samples are tested in line with industry and site procedures</li><li>2.2. Test results are obtained and interpreted in line with industry and site procedures</li><li>2.3. Test reports are completed in line with site procedures</li><li>2.4. Samples are stored in line with customer, test authority and site requirements</li></ul>                                                                                                                                                                                                                                                                                                                                                                            |
| 3. Complete testing    | <ul style="list-style-type: none"><li>3.1. Test results are reported and communicated in line with site standards</li><li>3.2. Potential faulty material is <b>identified</b> and <b>controlled</b> in conjunction with relevant personnel</li><li>3.3. Identified faults are reported and used to assist identification of production problems</li><li>3.4. Test sampling process is modified in response to identified problems and production changes</li><li>3.5. Testing outcomes are <b>recorded and reported</b> to the appropriate personnel</li></ul>                                                                                                                                                                                                 |

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

## **REQUIRED SKILLS AND KNOWLEDGE**

### **Required skills**

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; efficiently and safely collect and test samples; operate testing equipment
- Communication skills sufficient to use appropriate communication and interpersonal techniques with colleagues and others
- Literacy skills sufficient to record and report workplace information; maintain documentation
- Numeracy skills sufficient to apply mathematical and estimation processes
- Problem solving skills sufficient to identify problems and faults in production processes; demonstrate appropriate response procedures; apply test results to assist production efficiency

### **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 testing strength of joints
- Environmental protection requirements, including the safe disposal of waste material
- Organisational and site standards, requirements, policies and procedures for testing strength of joints
- Environmental risks and hazards
- Criteria for recycling and re-using faulty material
- Types of testing equipment and procedures for their safe use and maintenance
- Industry and enterprise standard tests and strength specifications
- Adhesives and nailed systems
- Typical production problems and resulting joint characteristics
- Established communication channels and protocols
- Problem identification and resolution strategies, and common fault finding techniques
- Types of tools and equipment, and procedures for their safe use 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 test the strength of joints in line with site standards and procedures, and strength specifications

### 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 testing strength of joints
- following organisational policies and procedures relevant to testing strength of joints
- preparing for testing, including sample collection and identifying any potential problems likely to affect test results

### Context of and specific resources for assessment

- 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

### 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

## EVIDENCE GUIDE

- 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.

#### **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

## RANGE STATEMENT

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 | <ul style="list-style-type: none"><li>• safety equipment</li><li>• first aid equipment</li><li>• fire fighting equipment</li><li>• hazard and risk control</li><li>• fatigue management</li><li>• elimination of hazardous materials and substances</li><li>• manual handling including shifting, lifting and carrying</li></ul>                                                                                                                                                                                                                                                                      |
| <b>Environmental requirements may include:</b>  | <ul style="list-style-type: none"><li>• legislation</li><li>• organisational policies and procedures</li><li>• workplace practices</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Legislative requirements:</b>                | <p>are to be in line with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice and may include:</p> <ul style="list-style-type: none"><li>• award and enterprise agreements</li><li>• industrial relations</li><li>• Australian Standards</li><li>• confidentiality and privacy</li><li>• OHS</li><li>• the environment</li><li>• equal opportunity</li><li>• anti-discrimination</li><li>• relevant industry codes of practice</li><li>• duty of care</li></ul>                                                                    |
| <b>Organisational requirements may include:</b> | <ul style="list-style-type: none"><li>• legal</li><li>• organisational and site guidelines</li><li>• policies and procedures relating to own role and responsibility</li><li>• quality assurance</li><li>• procedural manuals</li><li>• quality and continuous improvement processes and standards</li><li>• OHS, emergency and evacuation procedures</li><li>• ethical standards</li><li>• recording and reporting requirements</li><li>• equipment use, maintenance and storage requirements</li><li>• environmental management requirements (waste minimisation and disposal, recycling)</li></ul> |

**RANGE STATEMENT**

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         | and re-use guidelines)                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Joints</b> may be:                   | <ul style="list-style-type: none"><li>• glued</li><li>• formed with nail plates</li></ul>                                                                                                                                                                                                                                                                                                                |
| <b>Test</b> may include:                | <ul style="list-style-type: none"><li>• bending test</li><li>• wet or dry cleavage chisel test</li><li>• block shear test</li><li>• nail plate pull out test</li></ul>                                                                                                                                                                                                                                   |
| <b>Checked</b> may relate to:           | <ul style="list-style-type: none"><li>• appropriateness and accuracy of equipment</li><li>• test specifications, locations and methods</li></ul>                                                                                                                                                                                                                                                         |
| <b>Prepared</b> relates to:             | <ul style="list-style-type: none"><li>• preparing test sample without adversely affecting sample quality</li></ul>                                                                                                                                                                                                                                                                                       |
| <b>Problems</b> may include:            | <ul style="list-style-type: none"><li>• situations likely to affect test results and production processes</li><li>• test accuracy</li><li>• sample quality</li><li>• faulty material</li><li>• defects</li></ul>                                                                                                                                                                                         |
| <b>Communication</b> may include:       | <ul style="list-style-type: none"><li>• verbal and non-verbal language</li><li>• constructive feedback</li><li>• active listening</li><li>• questioning to clarify and confirm understanding</li><li>• use of positive, confident and cooperative language</li><li>• use of language and concepts appropriate to individual social and cultural differences</li><li>• control of tone of voice</li></ul> |
| <b>Identified</b> may be:               | indicated by: <ul style="list-style-type: none"><li>• failed test</li><li>• test variations</li></ul>                                                                                                                                                                                                                                                                                                    |
| <b>Controlled</b> may include:          | <ul style="list-style-type: none"><li>• disposing of faulty material by:<ul style="list-style-type: none"><li>• recycling</li><li>• re-using</li><li>• redirecting for energy recovery</li></ul></li></ul>                                                                                                                                                                                               |
| <b>Records and reports</b> may include: | <ul style="list-style-type: none"><li>• tally sheets</li><li>• quality sheets and forms</li><li>• production sheets and downtime sheets</li></ul>                                                                                                                                                                                                                                                        |
|                                         | and may relate to:                                                                                                                                                                                                                                                                                                                                                                                       |
|                                         | <ul style="list-style-type: none"><li>• production details</li></ul>                                                                                                                                                                                                                                                                                                                                     |

**RANGE STATEMENT**

- maintenance details
- breakdowns or equipment faults
- computer problems
- interruptions to production

and may be:

- manual
- computer-based system
- other appropriate organisational communication system

**Unit Sector(s)**

Not Applicable

**Competency field**

**Competency field**                      Common Technical