



Australian Government

Department of Education, Employment and Workplace Relations

LMFFL2004A Moisture test timber and concrete floors

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit specifies the outcomes required to moisture test and formally report on the condition of timber and concrete floors.
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Application of the Unit

Application of the unit	This unit supports the attainment of skills and knowledge required for competent workplace performance in the wide variety of flooring technology operations. The competency applies to an on site environment and involves application of skills and knowledge at a sub-trade and trade worker level. These skills and knowledge are to be used within the scope of the individual's job and authority.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil	

Employability Skills Information

Employability skills	This unit contains employability skills.
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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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work	<p>1.1. Applicable <i>legislative, OHS</i> and <i>organisational</i> requirements relevant to moisture testing timber and concrete are verified and complied with</p> <p>1.2. Customer enquiry and <i>relevant information</i> is consulted to determine the type of proposed flooring operation and other work requirements</p> <p>1.3. Moisture content requirements for the proposed flooring are determined from manufacturer or workplace information</p> <p>1.4. <i>Tools, equipment</i> and required <i>materials</i> are obtained and prepared for the work</p>
2. Conduct moisture testing on timber flooring and components	<p>2.1. The type of floor construction materials and the building floor structure and substructure are identified</p> <p>2.2. <i>Timber flooring is visually inspected</i> to identify irregularities in moisture content.</p> <p>2.3. Ventilation flow is confirmed and irregularities noted</p> <p>2.4. Floor joists, bearers and stumps are visually checked for moisture content irregularities</p> <p>2.5. Moisture testing of timber flooring, floor joists, bearers and stumps EMC is completed in accordance with the approved process and standard</p>
3. Conduct moisture testing on concrete floors	<p>3.1. The type of floor construction materials and the building floor structure and substructure are identified</p> <p>3.2. <i>Concrete floor is visually inspected</i> to identify irregularities in moisture content.</p> <p>3.3. Moisture testing is completed in accordance with the approved process and Australian standard</p>
4. Notify findings of moisture tests	<p>4.1. <i>Notification</i> of the findings of the moisture tests is completed in accordance with the current and relevant Australian standards</p> <p>4.2. Copies of the notification are sent to appropriate personnel and suitably filed following workplace procedures</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- Collect, organise and understand information related to work orders, plans and safety procedures
- Communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with site supervisor, other workers and customers, and the reporting of moisture testing outcomes and problems
- Work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity
- Use pre-checking and inspection techniques to anticipate moisture testing problems to avoid re-work and wastage
- Diagnose and identify the causes and consequences of moisture irregularities
- Recognise and respond to circumstances outside instructions or personal competence
- Plan and organise activities, including the obtaining of equipment and materials to avoid any back tracking, work flow interruptions or wastage
- Use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate other material requirements
- Clarify and confirm work instructions
- Plan work within given task parameters
- Accept responsibility for given tasks
- Set, monitor and satisfy personal work goals
- Satisfy the competency requirements for the job
- Maintain current knowledge of:
 - moisture testing equipment and processes
 - timber and concrete materials
- seek learning opportunities
- use the workplace technology related to the moisture testing of timber and concrete including tools, equipment, calculators and measuring devices.

Required knowledge

- workplace safety system requirements related to moisture testing timber and concrete
- type, characteristics and moisture content of:
 - timber sub-floor structures
 - concrete sub-floor structures
- types and uses of moisture testing equipment and procedures for their safe use, operation and maintenance
- requirements for moisture content of selected timber flooring components

REQUIRED SKILLS AND KNOWLEDGE

- characteristics and requirements of sub-floor moisture testing work flow in relation to moisture testing processes and procedures

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.

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

- Comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for sub-floor inspection
- Interpret work order and locate and apply relevant information
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Follow work instructions, operating procedures and inspection practices to:
 - minimise the risk of injury to self and others
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
- Complete a minimum of:
 - one electrical resistance moisture test on timber flooring, floor joists, bearers and stumps including written notification of the test results
 - one hygrometer moisture test on, concrete flooring including written notification of test results
 - one capacitance moisture test on, concrete flooring including written notification of test results
 - one calcium chloride test on, concrete flooring including written notification of test results
- Work effectively with others
- Modify activities to cater for variations in workplace contexts and environment

Context of, and specific resources for assessment

- The application of 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 essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context

EVIDENCE GUIDE	
	<ul style="list-style-type: none"> • Assessment is to comply with relevant regulatory or Australian Standards requirements • The following resources should be made available: <ul style="list-style-type: none"> • workplace location or simulated workplace • testing equipment, tools and materials relevant to moisture testing • specifications and work instructions
Method of assessment	<p>Assessment must satisfy the endorsed assessment guidelines of the Furnishing Industry Training Package</p> <p>Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge</p> <p>Assessment methods must be by direct observation of tasks and include questioning on underpinning knowledge to ensure its correct interpretation and application</p> <p>Assessment may be applied under project related conditions (real or simulated) and require evidence of process</p> <p>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</p> <p>Assessment may be in conjunction with assessment of other related units of competency, e.g. Plan and cost flooring technology work</p>

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.

Legislative requirements	<ul style="list-style-type: none"> are to be in accordance with applicable legislation from all levels of government that affect organisational operation. Requirements may include but not be limited to 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 and heritage
OHS requirements	<ul style="list-style-type: none"> are to be in accordance with Commonwealth, State or Territory legislation and regulations, organisational safety policies and procedures. Requirements may include but not be limited to the use of personal protective equipment and clothing, fire fighting equipment, First Aid equipment, hazard and risk control and elimination, control of hazardous materials and substances, manual handling including lifting and carrying
Organisational requirements	<ul style="list-style-type: none"> may include but not be limited to legal, organisational and site guidelines, policies and procedures relating to own role and responsibility, quality assurance, procedural manuals, quality and continuous improvement processes and standards, OHS, emergency and evacuation, ethical standards, recording and reporting, access and equity principles and practices, equipment use, maintenance and storage, environmental management (waste disposal, recycling and re-use guidelines)
Relevant information	<ul style="list-style-type: none"> Workplace procedures relating to the use and operation of moisture testing tools and equipment Workplace instructions, including job sheets, plans, drawings and designs

RANGE STATEMENT	
	<ul style="list-style-type: none"> • Workplace procedures relating to notification and communications • Manufacturer instructions for the use of moisture testing equipment and materials
Tools and equipment	<ul style="list-style-type: none"> • are to include electrical resistance meter, timber probe, tape measure, hygrometer, thermometer probe, temperature gauge, relative humidity, electric drill and masonry drill bits
Materials	<ul style="list-style-type: none"> • may include timber strip flooring, construction sheet flooring, concrete floors, above grade, on grade and below grade floors
Timber moisture tests	<ul style="list-style-type: none"> • are to include tests for moisture content, of timber flooring, floor joists, bearers and stumps rotting, insect attack and cross flow ventilation
Concrete moisture tests	<ul style="list-style-type: none"> • are to include checks for moisture, damage to expansion joint, concrete surface for weakness or damage and for the presence of curing agents
Inspection notifications	<ul style="list-style-type: none"> • are to cover the type and number of moisture test completed, inspection findings, suggested remedies to any faults identified and recommendations for the selected flooring

Unit Sector(s)

Unit sector	Flooring Technology
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Competency field

Competency field	Timber flooring
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Co-requisite units

Co-requisite units		