



Australian Government

MSFFL2004 Moisture test timber and concrete floors

Release: 1

MSFFL2004 Moisture test timber and concrete floors

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers moisture testing and formally reporting on the condition of timber and concrete floors. It applies to a wide variety of flooring technology operations in an on-site environment and involves application of skills and knowledge at a sub-trade and trade worker level.

Licensing, legislative or certification requirements may apply to this unit and relevant state/territory and local government agencies should be consulted to determine any necessary certification or licensing for undertaking flooring work. Access to construction sites requires certification of general induction training specified by the National Code of Practice for Induction for Construction Work (ASCC 2007).

Pre-requisite Unit

Competency Field

Unit Sector

Flooring technology

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Prepare for work	1.1	Applicable work health and safety (WHS), legislative and organisational requirements relevant to moisture testing timber and concrete are verified and complied with
		1.2	Customer enquiry and relevant information are consulted to determine the type of proposed flooring operation and other work requirements
		1.3	Moisture content requirements for the proposed flooring are determined from manufacturer or workplace information
		1.4	Tools, equipment and required materials are obtained

			and prepared for the work
2	Conduct moisture testing on timber flooring and components	2.1	The type of floor construction materials and the building floor structure and substructure are identified
		2.2	Timber flooring is visually inspected to identify irregularities in moisture content
		2.3	Ventilation flow is confirmed and irregularities noted
		2.4	Floor joists, bearers and stumps are visually checked for moisture content irregularities
		2.5	Moisture testing of timber flooring, floor joists, bearers and stumps, and equilibrium moisture content (EMC) is completed in accordance with the approved process and standard
3	Conduct moisture testing on concrete floors	3.1	The type of floor construction materials and the building floor structure and substructure are identified
		3.2	Concrete floor is visually inspected to identify irregularities in moisture content
		3.3	Moisture testing is completed in accordance with the approved process and Australian Standard
4	Notify findings of moisture tests	4.1	Notification of the findings of the moisture tests is completed in accordance with the current and relevant Australian standards
		4.2	Copies of the notification are sent to appropriate personnel and suitably filed following workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. Detail on appropriate performance levels for each furnishing unit of competency in reading, writing, oral communication and numeracy utilising the Australian Core Skills Framework (ACSF) are provided in the Furnishing Training Package Implementation Guide.

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the

candidate, accessibility of the item, and local industry and regional contexts) are included. Range is restricted to essential operating conditions and any other variables essential to the work environment.

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|---|---|
| Legislative requirements include: | <ul style="list-style-type: none">• applicable legislation from all levels of government that affect organisational operation• award and enterprise agreements• industrial relations• Australian Standards• confidentiality and privacy• WHS• the environment• equal employment opportunity (EEO)• anti-discrimination• relevant industry codes of practice• duty of care and heritage |
| WHS requirements include: | <ul style="list-style-type: none">• Commonwealth, state or territory legislation and regulations• organisational safety policies and procedures• use of personal protective equipment• firefighting equipment• first aid equipment• hazard and risk control and elimination of hazardous materials and substances• manual handling, including lifting and carrying |
| Organisational requirements include: | <ul style="list-style-type: none">• 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• WHS• 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 includes: | <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• workplace procedures relating to notification and |

	communications
	• manufacturer instructions for the use of moisture testing equipment and materials
Tools and equipment include:	• electrical resistance meter • timber probe • tape measure • hygrometer • thermometer probe • temperature gauge • relative humidity • electric drill • masonry drill bits
Materials include:	• timber strip flooring • construction sheet flooring • concrete floors • above grade, on grade and below grade floors
Timber moisture tests include:	• tests for moisture content of timber flooring, floor joists, bearers and stumps rotting, insect attack and cross-flow ventilation
Concrete moisture tests include:	• checks for moisture, damage to expansion joint, concrete surface for weakness or damage and for the presence of curing agents
Inspection notifications include:	• invasive in-situ probe test (ASTM F2170) • the type and number of moisture tests completed • inspection findings • suggested remedies to any faults identified • recommendations for the selected flooring

Unit Mapping Information

Supersedes and is equivalent to LMFFL2004A Moisture test timber and concrete floors

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>

Assessment Requirements for MSFFL2004 Moisture test timber and concrete floors

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Performance Evidence

- Comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for sub-floor inspection
- 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:
 - an electrical resistance moisture test on timber flooring, floor joists, bearers and stumps, including written notification of the test results
 - a hygrometer moisture test on concrete flooring, including written notification of test results
 - a capacitance moisture test on concrete flooring, including written notification of test results
- Modify activities to cater for variations in workplace contexts and environment
- 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 backtracking, work flow interruptions or wastage
- Use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate other material requirements
- Maintain current knowledge of:
 - moisture testing equipment and processes
 - timber and concrete materials

- Use the workplace technology related to the moisture testing of timber and concrete, including tools, equipment, calculators and measuring devices

Knowledge Evidence

- Workplace safety system requirements related to moisture testing timber and concrete
- Types, 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
- Characteristics and requirements of sub-floor moisture testing
- Work flow in relation to moisture testing processes and procedures

Assessment Conditions

- Assessors must:
 - hold training and assessment competencies as determined by the National Skills Standards Council (NSSC) or its successors
 - have vocational competency in the furnishing industry at least to the level being assessed with broad industry knowledge and experience, usually combined with a relevant industry qualification
 - be familiar with the current skills and knowledge used and have relevant, current experience in the furnishing industry.
- Assessment methods must confirm consistency of performance over time rather than a single assessment event and in a range of workplace relevant contexts.
- Assessment must be by observation of relevant tasks with questioning on underpinning knowledge and, where applicable, multimedia evidence, supervisor's reports, projects and work samples.
- Assessment is to be conducted on single units of competency or in conjunction with other related units of competency. Foundation skills are integral to competent performance in the unit and should not be assessed separately.
- Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines.
- Access is required to testing equipment, tools and materials relevant to moisture testing.

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