



Australian Government

Department of Education, Employment and Workplace Relations

CPCCWF3002A Fix floor tiles

Release: 1

CPCCWF3002A Fix floor tiles

Modification History

Not Applicable

Unit Descriptor

Unit descriptor This unit of competency specifies the outcomes required to fix floor tiles to different substrates using mortar or adhesive.

It includes the preparation, cutting, fixing and grouting of tiles for floors, including steps/stairs and thresholds.

Application of the Unit

Application of the unit This unit of competency supports the attainment of skills and knowledge to fix floor tiles while working with others as a member of a team.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units

CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry
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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. Plan and prepare.	1.1. Work instructions and operational details are obtained using relevant information, confirmed and applied for planning and preparation purposes. 1.2. Safety (OHS) requirements are followed in accordance with safety plans and policies. 1.3. Signage and barricade requirements are identified and implemented. 1.4. Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement. 1.5. Material quantity requirements are calculated in accordance with plans and specifications and quality requirements. 1.6. Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use. 1.7. Environmental requirements are identified for the project in accordance with environmental plans and regulatory obligations and applied.
2. Set out tiling job.	2.1. Area to be tiled is prepared to requirements of job specification in accordance with workplace procedures. 2.2. Tiles are checked for conformity to size, patterns, colours and characteristics in accordance with plans and specifications. 2.3. Tile work is set out to be symmetrical and balanced, and to produce minimal waste in accordance with specifications and standards. 2.4. Waterproof membrane is fitted and laid in wet areas to conform to manufacturer specifications and regulatory requirements.
3. Cut tiles as required.	3.1. Tiles are cut without jagged, flaid edges or damage to tile surfaces or finish, in accordance with workplace procedures and manufacturer recommendations. 3.2. Recess hole or curve is cut by hand or machine to shape and size and to specified tolerance. 3.3. Tile jolly is edged to form a mitre so that biscuit is not exposed at the joint in accordance with workplace procedures and manufacturer recommendations.
4. Lay and fix floor	4.1. Floor is checked for level/falls and square and

ELEMENT	PERFORMANCE CRITERIA
tiles.	membranes or underlay are installed in accordance with workplace procedures and manufacturer recommendations. 4.2. Substrate surface is prepared free from contaminants and residues to receive adhesive or screeded mortar in accordance with plans and specifications. 4.3. Tiles are checked for conformity to size, patterns, colours and characteristics in accordance with plans and specifications. 4.4. Adhesive is matched with tile and substrate material and mixed according to usage, climatic conditions and manufacturer specifications. 4.5. Cement mortar is prepared to appropriate consistency and floor is slurried and screeded to specifications. 4.6. Tiles are laid and fixed in conformance to standards and specifications, maintaining bond with joints that are uniform in size and a finished surface that is flat and smooth or to fulls. 4.7. Control joints are inserted in accordance with manufacturer specifications.
5. Tile treads, risers, steps and thresholds.	5.1. Step rises and goings are determined from formed concrete steps/stairs. 5.2. Steps are set out for uniform rise and make even cut on both sides of steps. 5.3. Step riser packing or render support is fixed where applicable and riser tiles are fixed to true alignment and uniform set out. 5.4. Treads infill and thresholds are fixed in line with the top edge of risers within specified tolerances.
6. Grout and seal tiles.	6.1. Joints are cleaned and prepared to receive grout according to manufacturer specifications. 6.2. Grout is mixed and applied in accordance with workplace and manufacturer specifications and to meet job requirements. 6.3. Tiles are cleaned and polished with dry cloth to specifications, removing all dust from surface and joints. 6.4. Tiles are sealed and protected in accordance with manufacturers' instructions and job specifications.
7. Clean up.	7.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.

ELEMENT	PERFORMANCE CRITERIA
	7.2.Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills for this unit are:

- communication skills to:
 - follow instructions
 - read and interpret:
 - documentation from a variety of sources
 - drawings and specifications
 - recognise procedures
 - report faults
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication, such as hand signals
 - written skills to record results of checks and tests and relevant work completion procedures
- evaluate own actions and make judgments about performance and necessary improvements
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials
- organisational skills, including the ability to plan and set out work
- respond to change and contribute to workplace responsibilities, such as current work site environmental and sustainability frameworks and management systems
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
 - use a range of mobile technology, such as two-way radio and mobile phones

REQUIRED SKILLS AND KNOWLEDGE

- voice and hand signals to access and understand site-specific instructions.

Required knowledge

Required knowledge for this unit is:

- control joints
- general construction terminology
- job safety analysis (JSA) and safe work method statements
- material safety data sheets (MSDS) and hazards associated with solvents, adhesives and cement or epoxy-based grouts
- materials storage and environmentally friendly waste management
- plans, drawings and specifications
- plant, tools and equipment types, characteristics, uses and limitations
- processes for the calculation of material requirements
- quality requirements
- techniques in fixing tiles to floors and step/stairs, including preparation of substrates
- tiling materials, including tiles, adhesives, mortar, grouting and substrates, their qualities, characteristics, preparation, techniques, applications, limitations and finishing
- workplace and equipment safety requirements.

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

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

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

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures including quality requirements
- safely and effectively operate and use tools, plant and equipment
- communicate and work effectively and safely with others
- as a minimum:
 - tile 4 square metres of a concrete bathroom floor using a sand and cement mortar mix
 - tile 4 square metres of a timber floor, laid on the diagonal with a half tile border, using adhesive
 - tile 4 square metres of a concrete floor with marble tiles, using adhesive
 - tile a minimum of three steps of 900mm width and 115mm risers and treads, including an expansion joint
- ensuring:
 - correct identification of requirement and completion of the tiling
 - correct selection and use of appropriate processes, tools and equipment

EVIDENCE GUIDE

Context of and specific resources for assessment

- completing all work to specification
- compliance with regulations, standards and organisational quality procedures and processes.

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- workplace location or simulated workplace
- materials relevant to fixing floor tiles
- hand and power tools, plant and equipment appropriate to fixing floor tiles
- realistic activities covering the mandatory task requirements
- specifications and work instructions.

Assessment of this unit of competency may be in conjunction with assessment of other units commonly performed at the same time in normal job roles.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles

EVIDENCE GUIDE

- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

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

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS
- memos
- regulatory and legislative requirements pertaining to fixing floor tiles
- relevant Australian standards
- safe work procedures relating to fixing floor tiles
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.

Planning and preparation include:

- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- work site inspection.

Safety (OHS) is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- hazard control
- hazardous materials and substances
- organisational first aid
- PPE prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
 - concealed services (water, power and gas)
 - lighting
 - traffic control
 - restricted access barriers
 - trip hazards
 - work site visitors and the public
 - working at heights
 - working in confined spaces
 - working in proximity to others

RANGE STATEMENT

Tools and equipment:

- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.
- include:
 - brooms
 - brushes
 - buckets
 - caulking guns
 - cement sheet cutters
 - hammers
 - hose and water sprays
 - ladders
 - levelling equipment
 - lump hammers
 - measuring tapes and rules
 - mortar boards
 - nippers
 - pointed grouters
 - power drills
 - power leads
 - rags
 - rubber mallets
 - sanding blocks
 - saws
 - scrapers
 - shovels
 - spacers and wedges
 - spatulas
 - sponges
 - squares
 - squeegees
 - straight edges
 - stringlines
 - tile cutters and scribes
 - trowels
 - wet and dry diamond saws
 - wheelbarrows

RANGE STATEMENT

	• wire brushes • wooden floats • may include: • concrete mixers • masonry drill bits • power grinders • power sanders.
Quality requirements include relevant regulations, including:	• Australian standards • internal company quality policy and standards • manufacturer specifications • workplace operations and procedures.
Materials include:	• adhesives • caulking compounds • cement mortar (with and without additives) • grout • sealers • tiles.
Environmental requirements include:	• clean-up management • dust and noise • vibration • waste management.
Types of tiles include:	• ceramic • glass • granite • marble • porcelain • stone • terracotta.
Substrates include:	• approved waterproof substrates • compressed FC sheeting • concrete • fibre cement underlay • rendered concrete • timber.
Tiles are fixed using:	• adhesives • cement mortar • cement mortar with adhesive additive.
Grout may be:	• cementitious • epoxy.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area