



Australian Government

Department of Education, Employment and Workplace Relations

CPCCFWF3006A Carry out mosaic tiling

Release: 1

CPCCFWF3006A Carry out mosaic tiling

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to fix a mosaic directly into place to a tiled wall or floor.

It includes the cutting and laying out of a pattern or template and the application of the tiles to the required area.

Application of the Unit

Application of the unit

This unit of competency supports the attainment of skills and knowledge to carry out mosaic tiling 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

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.	<p>1.1. Work instructions and operational details are obtained using relevant <i>information</i>, confirmed and applied for <i>planning and preparation</i> purposes.</p> <p>1.2. <i>Safety (OHS)</i> requirements are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. <i>Tools and equipment</i> 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.</p> <p>1.5. Material quantity requirements are calculated in accordance with plans and specifications and <i>quality requirements</i>.</p> <p>1.6. <i>Materials</i> appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</p> <p>1.7. <i>Environmental requirements</i> are identified for the project in accordance with environmental plans and regulatory obligations and applied.</p>
2. Prepare materials.	<p>2.1. Work area for mosaic fixing is prepared for the requirements of the task.</p> <p>2.2. Mosaic sheets are checked for conformity to size, pattern, colour and characteristics in accordance with plans and specifications.</p> <p>2.3. Mosaic work is set out to be symmetrical, balanced and produce minimal waste in accordance with specifications and standards.</p> <p>2.4. Adhesive is selected, prepared and mixed in accordance with standard work practices, manufacturer recommendations and specifications.</p>
3. Prepare substrate.	<p>3.1. <i>Substrate</i> surfaces are prepared for application of render.</p> <p>3.2. Render is mixed to specification.</p> <p>3.3. Substrate surfaces are rendered to specified thickness, standard and finish.</p> <p>3.4. Surface is cleaned free of contaminants and loose material ready for tile application.</p>
4. Fix mosaic to flat surfaces.	<p>4.1. Prepared mosaic sheets or tiles are marked to identify the section of application.</p>

ELEMENT**PERFORMANCE CRITERIA**

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	4.2. Appropriate fixing medium is selected to ensure light coloured tiles are not darkened.
	4.3. Fixing medium is applied to substrate and mosaic sheets or tiles are laid in accordance with manufacturer specifications, maintaining alignment to set out lines and face surface of tiles, to the specified finish.
	4.4. Mosaic tiles are positioned prior to final set and adjusted to ensure the specified mosaic lines and spaces are consistent.
	4.5. Surface is finished so that the face of tiles is flush and the surface is flat.
5. Fix mosaic to curved surfaces.	5.1. Extent of curve is established from site inspection.
	5.2. Datum line is set out around wall.
	5.3. Tiles are set out to determine design balance and to identify any cutting requirement.
	5.4. Template is made to form the finished curve of the tiled surface.
	5.5. Tile laying method is determined, and the location of the first tile is identified.
	5.6. Render is mixed to specifications.
	5.7. Substrate surfaces are rendered to specified thickness and finished to prepared template.
	5.8. Mortar and/or adhesive is prepared to manufacturer specifications.
	5.9. Tiles are fixed level, plumb, flush and square in accordance with specifications.
	5.10. Horizontally laid tiles are set out to grid with perimeter tiles marked and cut to fit curve lines.
6. Fix mosaic to a circular column.	6.1. Surface is prepared and cleaned for render application.
	6.2. Template is prepared for the diameter profile of column.
	6.3. Render is mixed to specifications.
	6.4. Render is applied to specified thickness and finished to prepared template.
	6.5. Template is prepared for diameter profile of finished tiled face.
	6.6. Mosaic sheet or tiles are fixed to column, maintaining an even spacing and plumb and level finish, to specification.

ELEMENT	PERFORMANCE CRITERIA
7. Grout tile face.	7.1. Tiled surface is cleaned free of dust and adhesive. 7.2. Oxides are selected and grout is mixed and applied to mosaic surface in accordance with manufacturer specifications and to meet job requirements. 7.3. Finished mosaic surface is cleaned and polished with dry cloth to specifications.
8. Clean up.	8.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification. 8.2. 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,

REQUIRED SKILLS AND KNOWLEDGE

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

Required knowledge

Required knowledge for this unit is:

- 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
- mosaic tiling materials, including tiles, adhesives, mortar, grouting and substrates, their characteristics, preparation, methods, application and finishing
- mosaic tiling methods and set out procedures
- plans, drawings and specifications
- plant, tools and equipment types, characteristics, uses and limitations
- processes for the calculation of material requirements
- quality requirements
- 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, prepare and lay 2 square metres of mosaic tile (half in adhesive and half in render and lay) for a bathroom wall; prepare and lay mosaic tile to a hob and return; and prepare and lay paper-based mosaic tile to a column of more than 360mm radius and at least 1m high, ensuring:
 - correct identification of requirement and completion of the tiling
 - correct selection and use of appropriate processes, tools and equipment
 - completing all work to specification
 - compliance with regulations, standards and organisational quality procedures and processes.

Context of and specific

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

EVIDENCE GUIDE

resources for assessment

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 mosaic tiling
- hand and power tools, plant and equipment appropriate to mosaic tiling
- 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
- 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

EVIDENCE GUIDE

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. **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.

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS

RANGE STATEMENT

Planning and preparation
include:

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

Tools and equipment:

- memos
- regulatory and legislative requirements pertaining to mosaic tiling
- relevant Australian standards
- safe work procedures relating to mosaic tiling
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.
- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- work site inspection.
- 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
- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.
- include:
 - buckets

RANGE STATEMENT

- caulking guns
- levelling equipment
- lump hammers
- measuring tapes and rules
- nippers
- pointed grouters
- power drills
- rags
- rubber mallets
- scrapers
- shovels
- spacers and wedges
- sponges
- squares
- squeegees
- straight edges
- stringlines
- tile cutters and scribes
- trowels
- wooden floats
- may include:
 - concrete mixers
 - masonry drill bits.

Quality requirements include relevant regulations, including:

- Australian standards
- internal company quality policy and standards
- manufacturer specifications
- workplace operations and procedures.

Materials include:

- adhesives
- caulking compound
- cement mortar (with and without additives)
- grout
- mosaic sheet
- paper
- paper-faced mosaic
- tiles.

Environmental requirements include:

- clean-up management
- dust and noise
- vibration

RANGE STATEMENT

- Substrates:**
- waste management.
 - include:
 - blockwork
 - brickwork
 - concrete walls
 - fibre cement sheet
 - timber
 - may include:
 - approved waterproof surfaces.
- Tiles may be *fixed* using:
- adhesives
 - cement mortar
 - cement mortar with adhesive additive.
- Surfaces** include:
- circular
 - curved horizontal
 - curved vertical
 - flat horizontal
 - flat vertical.
- Tiles** include:
- ceramic
 - glass
 - granite
 - marble
 - porcelain
 - stone
 - terracotta.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area