



Australian Government

PMC553072 Model fibrous plaster products

Release: 1

PMC553072 Model fibrous plaster products

Modification History

Release 1. Supersedes and is equivalent to PMC553072B Model fibrous plaster products

Application

This unit of competency covers the skills and knowledge required to make a model of a final fibrous plaster product. The model will typically be used as a prototype for future production.

This unit of competency applies to plaster modellers or those in similar roles who are required to determine the specifications for the work piece; plan, prepare for and make the model; make adjustments to remedy faults and non-conformity; and solve problems within area of responsibility.

This unit of competency applies to an experienced operator demonstrating theoretical and technical knowledge and well developed skills in situations that require some discretion and judgement. The experienced operator may work alone or as a member of a team or group and will work in liaison with other shift team members, team leader and supervisor, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Operations

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1	Determine work piece to be produced	1.1	Discuss required attributes of the work piece with supervisor or, as appropriate, the client
		1.2	Determine dimensions and geometry of the work piece
		1.3	Identify the profile, pattern and specific features required to be replicated
		1.4	Establish and/or plan fixing or anchoring points and the best way to facilitate this in the work piece
		1.5	Plan the production method and determine materials and equipment needs
2	Set up work area and equipment	2.1	Establish work area, including anchor points for slides or screeds, as necessary
		2.2	Develop templates required to produce the work piece
		2.3	Mark out the correct dimensions and work piece geometry and check against templates or slide radii
		2.4	Establish and position any support materials required to develop and sustain the work piece during production
		2.5	Position any lifting or anchoring materials and check that these do not inhibit templates or screeds
		2.6	Test the functionality of the slides and ensure that all parts of the proposed work piece can be accessed
3	Generate profile of required work piece	3.1	Produce a segment of the desired profile and ensure that this matches the requirements of the original design
		3.2	Mount the sample to facilitate replication or to produce appropriate surface detail on the work piece
		3.3	Lubricate the sample for replication and the supporting work plate to facilitate ease of stripping of the completed work piece

- 4 **Produce work piece**
 - 4.1 Set up the supporting material in a manner which avoids interference with the screed or template
 - 4.2 Prepare plaster mix and ensure fibre strand is available
 - 4.3 Build up rough outline of the work piece adding fibre as the process proceeds
 - 4.4 Form up the desired shape by moving the sample, template or mould to facilitate development of the desired profile or by screeding off
 - 4.5 Build in anchor points or reinforcing at desired positions as the work proceeds
 - 4.6 Hollow out the work piece to minimise the mass of the object, as appropriate
 - 4.7 Check the profile to ensure compliance with the desired product
 - 4.8 Check the work piece for dimensional accuracy

- 5 **Strip and inspect completed work piece**
 - 5.1 Remove any external supports from the work piece after the plaster has dried
 - 5.2 Dismantle slides if used
 - 5.3 Clean and put away tools and fitments used in the production process
 - 5.4 Remove the work piece and inspect for errors, damage or porosity
 - 5.5 Clean up any excrescences and remove any waste material
 - 5.6 Coat the surface of the finished product according to organisational requirements to protect the surface
 - 5.7 Remove finished product to storage and shipment

- | | | | |
|---|----------------------------|-----|--|
| 6 | Control hazards | 6.1 | Identify hazards during the process or within the work area |
| | | 6.2 | Assess the risks arising from those hazards |
| | | 6.3 | Implement measures to control those risks in line with procedures and duty of care |
| 7 | Respond to problems | 7.1 | Identify possible problems in equipment or process |
| | | 7.2 | Determine problems needing action |
| | | 7.3 | Determine possible fault causes |
| | | 7.4 | Rectify problem using appropriate solution within area of responsibility |
| | | 7.5 | Follow through items initiated until final resolution has occurred |
| | | 7.6 | Report problems outside area of responsibility to designated person |

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for 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.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

Procedures All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- manufacturer's technical information
- job cards
- drawings
- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Hazards Hazards must be identified and controlled. Identifying hazards requires consideration of:

- heat, smoke, dust, vapours or other atmospheric hazards
- weight, shape, volume of materials to be handled
- hazardous products and materials
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- electricity
- gas
- gases and liquids under pressure
- noise
- rotational equipment or vibration
- plant services (steam, condensate, cooling water, etc)
- structural hazards
- equipment failures
- machinery, equipment and product mass
- limited head spaces or overhangs
- working at heights
- working in restricted or confined spaces
- other hazards that might arise.

Problems Routine and non-routine problems must be resolved.

Routine problems are predictable and have known solutions and include one or more of:

- incorrect calculations or setting out
- inappropriate plaster mixtures
- variations in ambient temperature
- inappropriate placement of reinforcing or anchor points.

Non-routine problems are unexpected problems or variations of previous problems.

Non-routine problems must be resolved by applying operational knowledge to develop new solutions, either individually or in collaboration with relevant experts, to:

- determine problems needing action
- determine possible fault causes
- develop solutions to problems which do not have a known solution

- follow through items initiated until final resolution has occurred
- report problems outside area of responsibility to designated person.

Operational knowledge includes one or more of:

- procedures
- training
- technical information, such as journals and engineering specifications
- remembered experience
- relevant knowledge obtained from appropriate people.

Tools and equipment

Tools and equipment include:

- slides
- templates
- hand and power tools
- mixing equipment
- lifting equipment (for large work).

Unit Mapping Information

Release 1. Supersedes and is equivalent to PMC553072B Model fibrous plaster products

Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>