



**Australian Government**

# **MSMPMC310 Hand mould products**

**Release: 1**

# MSMPMC310 Hand mould products

## Modification History

Release 1. New unit. Supersedes and is equivalent to PMC552024 Hand mould products.

## Application

This unit describes the skills and knowledge required to hand mould products using clay, ceramic, plaster and other materials.

This unit applies to operators who are required to take responsibility for own outputs and follow established procedures to select and prepare the moulds and then mould, remove, finish and store the product. Operators are also required to work autonomously and apply their own judgement to interpret information; monitor processes; identify and address routine and non-routine problems and control hazards.

This unit applies to an individual working alone or as part of a team or group and in liaison with other shift team members, team leader and supervisor.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

## Pre-requisite Unit

Nil

## Competency Field

Operations

## Elements and Performance Criteria

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                             |
| 1. Assemble and prepare the mould or former      | 1.1 Establish and maintain a safe working environment according to procedures<br>1.2 Identify and prepare appropriate mould or former<br>1.3 Level and secure the mould or former<br>1.4 Check that the base is stabilised and correctly mounted as required to facilitate rolling or turning out<br>1.5 Position inserts or loose pieces<br>1.6 Apply the correct stripping agent |

| <b>Elements</b>                                  | <b>Performance Criteria</b>                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                               |
| 2. Mould materials                               | 2.1 Prepare the material mix or obtain the material from the batch preparation unit according to specifications<br>2.2 Provide an adequate supply of material to meet production requirements<br>2.3 Introduce material to the work piece cavity and compact according to procedures<br>2.4 Check inserts or loose pieces and secure to avoid movement during moulding<br>2.5 Roll and strip or turn out the component for finishing |
| 3. Finish the component or product               | 3.1 Repair defects occurring during the moulding process<br>3.2 Remove inserts or loose pieces and replace in mould or former<br>3.3 Prepare the surface of the component for the application of any surface finishes<br>3.4 Cure or dry the components to specification<br>3.5 Return mould and/or segments for re-use or storage                                                                                                   |
| 4. Inspect and store components                  | 4.1 Inspect component for defects<br>4.2 Store the component to specifications and procedures                                                                                                                                                                                                                                                                                                                                        |
| 5. Rectify routine problems                      | 5.1 Identify and rectify faults and equipment failure<br>5.2 Maintain records and log books of equipment operations<br>5.3 Identify non-routine problems and report to designated person                                                                                                                                                                                                                                             |
| 6. Identify hazards                              | 6.1 Identify hand moulding hazards<br>6.2 Implement hazard controls according to procedures<br>6.3 Report safety concerns according to procedures                                                                                                                                                                                                                                                                                    |

## Foundation Skills

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

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

## Unit Mapping Information

Release 1. New unit. Supersedes and is equivalent to PMC552024 Hand mould products.

## Links

Companion Volume Implementation Guides are available at VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=d1287d36-dff4-4e9f-ad2c-9d6270054027>

# Assessment Requirements for MSMPMC310 Hand mould products

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## Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- hand moulded and finished at least 1 product or component, including:
  - monitoring the following key variables to ensure product integrity and conformance to specification:
    - supply of materials
    - specification of materials
    - distribution and compaction of materials
    - stability of mould and/or former and inserts
    - sectional profile of product
  - recognising possible causes of the following routine problems:
    - raw material variations
    - equipment malfunctions
    - process abnormalities.
  -

## Knowledge Evidence

There must be evidence the candidate has knowledge of:

- content and handling characteristics of the materials being moulded and:
  - typical curing and drying requirements
  - methods of repairing products
  - types of faults that can be repaired
  - types of faults that cannot be repaired
- functions and principles of operation of moulds and formers
- mould or former maintenance and inspection requirements
- the potential effects of variations in raw materials and process conditions in relation to quality of product and output
- routine problems and factors which may affect product quality or production output, their probable causes and relevant corrective actions
- work health and safety (WHS) requirements relevant to work outcome
- hand moulding hazards and:
  - their possible causes

- potential consequences
- risk control procedures.
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## Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
  - moulding, curing and finishing equipment and ancillary equipment
  - materials and products to be moulded and finished
  - specifications, procedures and job sheets
- modelling of industry operating conditions, including:
  - routine and non-routine problems.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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