



**Australian Government**

**MEM26013 Select and use composite  
processes or systems appropriate for  
product**

**Release: 1**

# MEM26013 Select and use composite processes or systems appropriate for product

## Modification History

Release 1. Supersedes and is equivalent to MEM26013A Select and use composite process or systems appropriate for product

## Application

This unit of competency defines the skills and knowledge required for the selection of processes or systems for the redesign of an existing product (e.g. using a different process) or the design of a new product similar to an existing product.

Where the selection of suitable materials is required unit MEM26011 Determine materials and techniques for a composite component or product should also be chosen.

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

**Band: A**

**Unit Weight: 4**

## Pre-requisite Unit

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

## Competency Field

Composites

## Elements and Performance Criteria

Elements describe the essential outcomes.

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

1	<b>Determine process requirements of the product</b>	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Select and use appropriate personal protective equipment

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. (PPE) in accordance with SOPs
	1.4 Determine physical, chemical and aesthetic characteristics of the product
	1.5 Determine production volume and delivery schedule
	1.6 Determine regulatory requirements
<b>2 Select most appropriate process/ system</b>	2.1 Identify processes which can deliver requirements of product
	2.2 Determine the capability of the organisation to use the processes and meet the requirements
	2.3 Evaluate each process against the requirements
	2.4 Select most appropriate process
	2.5 Fabricate a sample using most appropriate process
	2.6 Conduct/organise for relevant tests
	2.7 Evaluate test results
	2.8 Review test results against product and sustainability requirements
	2.9 Review selected fabrication process and make any required changes to process
<b>3 Use process to make product</b>	3.1 Identify and control hazards
	3.2 Fabricate product using selected process and minimise waste
	3.3 Review product compared to requirements
	3.4 Review fabrication process
	3.5 Identify areas for improvement and take corrective actions

Elements describe the essential outcomes.

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

- 3.6 Complete any required documentation/reporting according to SOPs

## Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

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.

**Physical characteristics of product include the following:**

- size
- shape
- weight
- requiring one/two part mould
- light weight
- high strength
- erosion resistant

**Chemical characteristics of product include the following:**

- corrosion resistant
- fire retardant
- ultraviolet (UV) resistant

**Aesthetic characteristics of product include the following:**

- finish (e.g. gloss, buffed and matt)
- colour

**Regulatory requirements include one (1) or more of the following:**

- dangerous goods
- WHS
- Environmental Protection Agency (EPA)

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.

**Areas for improvement include one (1) or more of the following:**

- cost/benefit of different processes
- selecting a process suited to the customer needs
- selecting a process within the organisation capability
- maximising sustainability

**Sustainability includes the following:**

- survival of the ecology/physical environment
- economic viability
- social sustainability

## Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM26013A Select and use composite process or systems appropriate for product

## Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>