



Australian Government

MEM26007 Select and use reinforcing appropriate for product

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM26007A Select and use reinforcing appropriate for product

Application

This unit of competency defines the skills and knowledge required to select specified reinforcement. It includes the science of reinforcing.

This unit does not cover the selection of reinforcing for a structurally designed composite, although it can include working with a person undertaking a structural design and it can cover 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 a suitable resin system is required unit MEM26008 Select and use resin systems appropriate for product should also be selected.

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	Determine product requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
		1.3	Select and use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Determine requirements of reinforcing to be used from specifications, job sheets or work instructions and customer requests
		1.5	Select appropriate process to be used to fabricate product
2	Select most appropriate reinforcing for job	2.1	Compile specification of required reinforcing properties
		2.2	Compare required properties with specifications of available reinforcing
		2.3	Select most appropriate reinforcing
3	Evaluate selected reinforcement	3.1	Fabricate a sample using the selected reinforcing and nominated resin system
		3.2	Conduct/organise for relevant tests
		3.3	Evaluate test results against product requirements
		3.4	Review fabrication process and make any required changes to reinforcing or process
4	Fabricate product	4.1	Identify and control hazards
		4.2	Prepare selected reinforcing including cutting to size/shape and any pre-treatment, as required
		4.3	Lay reinforcing in correct direction, including fibre orientation and fibre pre-forming, as appropriate
		4.4	Mix nominated resin system, as required
		4.5	Fabricate product using selected process and minimise waste
		4.6	Review product compared to requirements

Elements describe the essential outcomes.

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

- 4.7 Review reinforcing selection and fabrication process
- 4.8 Identify areas for improvement and take appropriate actions
- 4.9 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.

Requirements of reinforcing include the following:

- strength
- flexibility/rigidity
- directionality
- drape
- operating temperature

Most appropriate reinforcing includes the following:

- compliance with product requirements
- greatest ease of use in manufacture
- best financial return
- greatest sustainability contribution

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

- cost/benefit of different reinforcing systems
- selecting a reinforcing suited to the fabrication process

Sustainability includes

- survival of the ecology/physical environment
- economic viability

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.

the following:

- social sustainability

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM26007A Select and use reinforcing 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>