



Australian Government

MEM25001 Apply fibre-reinforced materials

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM25001B Apply fibre-reinforced materials

Application

This unit of competency defines the skills and knowledge required to apply and form/shape fibre-reinforced materials using manual and mechanical methods in marine vessel and aircraft construction applications.

It applies to application and forming operations conducted within a mould or over a former assembly and tasks include lay-up practices and sheathing applications using a variety of glass reinforcements and other fibres.

Where forming and integration work and vacuum bagging techniques are required unit MEM25002 Form and integrate fibre-reinforced structures should also be selected.

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

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13003	Work safely with industrial chemicals and materials
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM18001	Use hand tools
MEM18002	Use power tools/hand held operations

Competency Field

Marine craft construction

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1	Determine job requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Identify job requirements from specifications, job sheets or work instructions
2	Prepare for application/forming operations	2.1	Select appropriate tools and equipment according to organisational requirements and instructions
		2.2	Set up and adjust equipment ready for operation
		2.3	Identify and select materials according to the required job specifications
		2.4	Make allowances for thickness to specifications
3	Apply reinforced materials	3.1	Position components ready for reinforcement operation
		3.2	Start up equipment, shut down and operate according to SOPs
4	Form and shape reinforcement materials	4.1	Roll/shape materials to specified thicknesses and/or finishes
		4.2	Laminate materials according to specifications
		4.3	Check final application and shape for compliance to specifications and adjust, as necessary

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.

Applications include one (1) or more of the following:

- hull
- deck
- superstructures
- bulkhead and partitions
- transverse and longitudinal frame members
- engine beds
- tanks

Materials include one (1) or more of the following:

- variety of glass reinforcements and other fibres
- types of laminating resins
- stiffening materials, including:
 - foams
 - core mat

Tools and equipment include one (1) or more of the following:

- brushes and rollers
- metal rollers
- gel coat
- resin depositors

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>

