



Australian Government

MEM25006B Undertake marine sheathing operations

Release: 2

MEM25006B Undertake marine sheathing operations

Modification History

Release 2 - Prerequisite unit code corrected MEM25004B

Unit Descriptor

Unit descriptor	This unit covers applying sheathing to marine structures (sheathing operations). Basic composite sheathing operations are covered by Unit MEM25001B (Apply fibre-reinforced materials).
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Application of the Unit

Application of the unit	This unit covers the application of sheathing to marine structures. Work is undertaken autonomously, in a team environment or a combination of both. Predetermined standards of quality and safety are observed and work is carried out to standard operational procedures. Tasks may be carried out on prepared new and old surface areas. Sealing may involve various materials to ensure a watertight seal on a variety of components. Where application of marine coatings is undertaken, Unit MEM08002C (Pre-treat work for subsequent surface coating) and/or Unit MEM08004B (Finish work using wet, dry and vapour deposition methods) should also be selected. Basic sheathing operations are covered by Unit MEM25001B (Apply fibre-reinforced materials). Where materials and chemicals subject to codes and regulations are stored, Unit MEM13003B (Work safely with industrial chemicals and materials) should also be considered. Band: A Unit Weight: 2
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM13003B	Work safely with industrial chemicals and materials
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations
	MEM25004B	Fair and shape surfaces

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify job requirements	1.1.Job specifications are identified from written and verbal instructions as appropriate. 1.2.Surface materials are identified from specification or verbal instructions. 1.3.Application schedules are identified.
2. Observe safety practices	2.1.Application material is prepared in accordance with manufacturer specifications. 2.2.Work area is made safe in accordance with organisational and legislative requirements. 2.3.Safety practices are observed and appropriate protective clothing is worn.
3. Prepare surface areas and apply materials	3.1.Surface area is prepared to suit job application. 3.2.Surface contaminants are removed using appropriate method. 3.3.Where applicable, non-contact surface areas are protected. 3.4.Measures to prevent external contamination are applied in accordance with organisational procedures. 3.5.Appropriate equipment is used to calibrate mixing quantities. 3.6.Hand tools for mixing and application are selected to suit job requirements
4. Prepare application materials	4.1.Materials are prepared/mixed in accordance with manufacturer specification. 4.2.Material quantities are calculated and cut to produce minimum wastage.
5. Apply materials	5.1.Application tools are selected and used correctly. 5.2.Application procedures are carried out in accordance with manufacturer specification. 5.3.Where applicable, job materials are held securely in place until curing process is achieved. 5.4.Excess material is removed. 5.5.Application tools are cleaned up and stored. 5.6.Job area is cleaned up to maximise safe working conditions.
6. Seal fabricated components	6.1.Surface preparation is completed as per manufacturer specification.

ELEMENT	PERFORMANCE CRITERIA
	6.2.Sealant is applied to components and secured as per specifications and/or drawings. 6.3.Excess sealant is cleaned off and tested/checked to ensure water tightness.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- identifying and clarifying sheathing application, material and other relevant specifications
- identifying surface materials
- preparing materials
- measuring sheathing material lengths to produce minimal wastage
- preparing site
- using personal protection
- mixing solutions in correct ratios
- preparing surface area, including the removal of contaminants
- selecting tools
- shielding surface areas not being sheathed
- applying materials
- minimising waste
- securing matting/cloth and waste overhang
- removing excess materials to produce minimum sanding/finishing requirements
- cleaning and storing tools
- sanding/re-coating sheathed surface area
- securing components/fittings
- cleaning and structurally testing fittings

Required knowledge

Look for evidence that confirms knowledge of:

- sheathing material specifications, properties and uses
- surface types, specifications, cleaning and preparation techniques
- site preparation and safe working practices

REQUIRED SKILLS AND KNOWLEDGE

- sheathing preparation and safe working practices
- sealant types, specifications and uses
- masking procedures
- bonding/impregnating/reinforcing material specifications, properties and uses
- use of tools for sizing, measuring, mixing, applying sheathing and bonding/impregnating/reinforcing mixtures and finishing
- sealant application and finishing techniques
- sheathing application
- waste minimisation techniques
- securing materials and waste overhang
- removal of excess resin
- waste disposal obligations and regulations
- cleaning and storage of tools
- sanding/re-coating
- water testing techniques

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to undertake marine sheathing operations. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

Context of and specific resources for assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with marine sheathing operations or other units requiring the exercise of the skills and knowledge covered by this unit.

Method of assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

EVIDENCE GUIDE**Guidance information for assessment****Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Surface materials

Copper, gal sheet and other metals, fabric, sheathing resins, a range of adhesives, sealants and fillers and where applicable may be applied to timber, fibre-reinforced plastics and metal surface areas

Hand tools for mixing and application

Mixing sticks, putty/broad knives, scales, tins of equal size, trowels, squeegee, brushes and rollers

Unit Sector(s)**Unit sector****Co-requisite units**

Co-requisite units		

Competency field

Competency field	Marine craft construction
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