



Australian Government

MEM25006 Undertake marine sheathing operations

Release: 1

MEM25006 Undertake marine sheathing operations

Modification History

Release 1. Supersedes and is equivalent to MEM25006B Undertake marine sheathing operations

Application

This unit of competency defines the skills and knowledge required to apply sheathing to marine structures (sheathing operations).

Tasks can be carried out on prepared new and old surface areas and sealing can involve various materials to ensure a watertight seal on a variety of components.

Where application of marine coatings is undertaken unit MEM08002 Pre-treat work for subsequent surface coating and/or unit MEM08004 Finish work using wet, dry and vapour deposition methods, should also be selected as appropriate.

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
MEM25001	Apply fibre-reinforced materials
MEM25004	Fair and shape surfaces

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 surface areas and apply materials | 2.1 | Prepare application material in accordance with manufacturer specifications |
| | | 2.2 | Prepare surface area to suit job application |
| | | 2.3 | Remove surface contaminants using appropriate method |
| | | 2.4 | Protect non-contact surface areas, where applicable |
| | | 2.5 | Apply measures to prevent external contamination in accordance with organisational procedures |
| | | 2.6 | Use appropriate equipment to calibrate mixing quantities |
| | | 2.7 | Select hand tools for mixing and application to suit job requirements |
| | | | |
| 3 | Prepare and apply application materials | 3.1 | Prepare/mix materials in accordance with manufacturer specifications |
| | | 3.2 | Calculate material quantities and cut to produce minimum wastage |
| | | 3.3 | Select and use application tools |
| | | 3.4 | Carry out application procedures in accordance with manufacturer specifications |
| | | 3.5 | Hold job materials securely in place until curing process is achieved, where applicable |

Elements describe the essential outcomes.

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

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|---|-----------------------------------|-----|--|
| | | 3.6 | Remove excess material |
| | | 3.7 | Clean up application tools and store |
| | | 3.8 | Clean up job area to maximise safe working conditions |
| 4 | Seal fabricated components | 4.1 | Complete surface preparation in accordance with manufacturer specifications |
| | | 4.2 | Apply sealant to components and secure in accordance with specifications and/or drawings |
| | | 4.3 | Clean off excess sealant and test/check to ensure water tightness |

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.

- Surface materials include one (1) or more of the following:**
- copper
 - gal sheet and other metals
 - fabric
 - sheathing resins
 - adhesives
 - sealants
 - fillers

- Hand tools for mixing and application include one (1) or more of the**
- mixing sticks
 - putty/broad knives
 - scales

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.

following:

- tins of equal size
- trowels
- squeegee
- brushes
- rollers

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM25006B Undertake marine sheathing operations

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEM25006 Undertake marine sheathing operations

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and clarifying sheathing application, material and other relevant specifications for undertaking marine sheathing operations
- preparing surface materials and measuring sheathing lengths to produce minimal wastage to suit job application
- preparing surface area, including removal of contaminants and shielding surface areas not being sheathed
- selecting hand and power tools to mix solutions in correct ratios and applying in accordance with manufacturer specifications
- securing matting/cloth and waste overhang and holding job materials securely in place until curing process is achieved
- removing excess materials to produce minimum sanding/finishing requirements and disposing of waste in accordance with legislative requirements
- applying sealant to components and testing/checking to ensure water tightness.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- sheathing material specifications, properties and uses
- surface types, specifications, cleaning and preparation techniques
- site and sheathing preparation
- sealant types, specifications, application and finishing techniques
- 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
- sheathing applications

- waste minimisation techniques and waste disposal obligations and regulations
- methods for securing materials and waste overhang
- techniques/procedures for removal of excess resin
- methods for cleaning and storage of tools
- sanding/re-coating procedures
- water testing techniques.

Assessment Conditions

- Assessors must:
 - have vocational competency in undertaking marine sheathing operations at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires
- Where possible assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

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