



Australian Government

MEM26019 Finish a composite product

Release: 1

MEM26019 Finish a composite product

Modification History

Release 1. Supersedes and is equivalent to MEM26019A Finish a composite product

Application

This unit of competency defines the skills and knowledge required to select and use appropriate mechanical finishing and repair techniques for a composite product.

Where gel coating is required unit MEM26001 Lay up composites using open moulding techniques, MEM26002 Lay up composites using vacuum closed moulding techniques and MEM26003 Lay up composites using pressure closed moulding techniques should also be selected as appropriate.

Where the selection and use of hand tools is required unit MEM18001 Use hand tools should also be selected.

Where the selection and use of power tools is required unit MEM18002 Use power tools/hand held operations 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	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS)

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
	requirements		requirements at all times
		1.3	Select and use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Determine finishing requirements, including machining, polishing, buffing, blasting, etching and making holes from specifications, drawings, job sheets or work instructions
2	Select most appropriate finishing for job	2.1	Compare required finish with results of different finishing methods
		2.2	Select most appropriate finishing method
		2.3	Conduct tests where appropriate, and review finishing method, as required
3	Finish product	3.1	Identify and control hazards
		3.2	Prepare finishing equipment, tools and materials, as required
		3.3	Finish product using selected process and minimise waste
		3.4	Review finished product compared to requirements
		3.5	Identify areas for improvement including damage to laminate from finishing process and take appropriate actions
		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.

Repairs are performed on one (1) or more of the following

- gel coats
- moulding imperfections
- moulds
- detailing

Finishing techniques include one (1) or more of the following:

- trimming
- forming holes (drilling, hole saw or other penetration) using hand, power or machine tools
- using jigs and fixtures
- removing burrs

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>

Assessment Requirements for MEM26019 Finish a composite product

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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 interpreting specifications, formulas/recipes, batch sheets, drawings, customer requests and descriptions of required use of product for finishing a composite product
- considering all reasonably appropriate finishing methods when selecting and choosing the appropriate method/technique
- finishing product using hand and power tools and machine tools, and observing finished surfaces ensuring it meets specifications and customer requests
- identifying areas for improvement and taking appropriate action
- completing all documentation and reports, including items requiring further action, in accordance with SOPs.

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)
- deburring and sanding
- surface preparation
- preparing cut edges
- drill bits and sizes
- measurement of tools and relationship to finished size
- choice of tool
- gel coat repair, metal flake, dual colour and touch up chips
- hazards and the hierarchy of hazard control measures
- report requirements and procedures.

Assessment Conditions

- Assessors must:

- have vocational competency in finishing a composite product 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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