



Australian Government

MEM08015 Apply protective coatings (advanced)

Release: 1

MEM08015 Apply protective coatings (advanced)

Modification History

Release 1. Supersedes and is equivalent to MEM08015B Apply protective coatings (advanced)

Application

This unit of competency defines the skills and knowledge required to spray pre-treatments and protective coatings when an advanced level of skill is required. It includes inspection and interpretation of the coating results using all current industry knowledge and test equipment.

Where application of basic single and two pack coatings not containing isocyanates is required unit MEM08014 Apply protective coatings (basic) should be selected.

Where the interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of engineering measurement is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of tools is required unit MEM18001 Use hand tools and unit MEM18002 Use power tools/hand held operations, 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: 4

Pre-requisite Unit

MEM08014	Apply protective coatings (basic)
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

Competency Field

Surface finishing

Elements and Performance Criteria

Elements describe the essential outcomes.

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

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|---|---|-----|---|
| 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 and maintain appropriate personal protective equipment (PPE) in accordance with manufacturers' specifications and standard operating procedures |
| | | 1.4 | Identify job requirements from specifications, job sheets or work instructions |
| | | 1.5 | Identify and interpret supplier information, product details, Australian and international standards, regulatory and legislative requirements relevant to the work to be undertaken |
| 2 | Prepare to undertake work | 2.1 | Select appropriate coating system and material to meet job specification |
| | | 2.2 | Select appropriate coating process and equipment to meet job specification |
| | | 2.3 | Prepare worksite for surface coating activities |
| 3 | Prepare work piece for application of protective coating | 3.1 | Inspect surface condition for readiness for application of protective coating according to specification |
| | | 3.2 | Identify unsuitable work pieces/surfaces and fabrication defects and appropriate undertake remedial action or in accordance with SOPs |
| | | 3.3 | Mask components where protective coating application is not specified |
| | | 3.4 | Identify and account for conditions for overspray |
| 4 | Prepare | 4.1 | Apply required plant and equipment basic operations |

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
equipment for application of surface coating materials	4.2 Undertake routine maintenance on plant and equipment in accordance with SOPs
	4.3 Record status/reports by proforma or orally in accordance with procedures
	4.4 Assemble coating application equipment in accordance with requirements
5 Apply coatings using conventional, airless and plural component equipment	5.1 Identify coating product type, solvent, uses, mixing procedure, clean-up and safety requirements, as appropriate
	5.2 Use the correct method of determining wet film thickness in accordance with specified dry film
	5.3 Thin coating material to suit the application method and to achieve required film thickness
	5.4 Apply coating using specified application method
	5.5 Monitor coating application and curing technique according to SOPs
6 Clean and store equipment	6.1 Clean and disassemble coating application equipment and inspect for damage
	6.2 Record and report faulty equipment to appropriate personnel in accordance with SOPs
	6.3 Store coating application equipment in accordance with SOPs
7 Inspect finished surface	7.1 Assess surface finish for profile size differences and uses
	7.2 Determine coating thickness using appropriate instruments and compare results with job specifications
	7.3 Inspect total surface for conformance to specification in accordance with SOPs

Elements describe the essential outcomes.

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

		7.4	Record and report inspection results in accordance with SOPs
8	Calculate, estimate and cost application of protective coating	8.1	Assess surface area of work piece, materials, labour and equipment
		8.2	Determine cost of materials, labour, handling and equipment
		8.3	Record and report results as an estimate for the application of a protective coating system

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, accessibility of the item, and local industry and regional contexts) are included.

Protective coatings include one (1) or more of the following:

- conventional
- two pack
- plural component

Test equipment includes one (1) or more of the following:

- Holiday and Pin Hole testing
- wet and dry film thickness gauges
- temperature
- relative humidity and dew point
- hardness
- gloss
- adhesion
- cure testing
- soluble salts

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, accessibility of the item, and local industry and regional contexts) are included.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM08015B Apply protective coatings (advanced)

Links

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