



Australian Government

MEM08002 Pre-treat work for subsequent surface coating

Release: 1

MEM08002 Pre-treat work for subsequent surface coating

Modification History

Release 1. Supersedes and is equivalent to MEM08002C Pre-treat work for subsequent surface coating

Application

This unit of competency defines the skills and knowledge required to carry out pre-treatment of common ferrous and non-ferrous work for finishing by a wide variety of processes and involves adjustments to apparatus/ equipment/ controls.

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.

This unit should not be selected if unit MEM08003 Perform electroplating operations has already been selected.

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

Band: A

Unit Weight: 4

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

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 appropriate personal protective equipment (PPE) in accordance with SOPs |
| | | 1.4 | Identify job requirements from specifications, job sheets or work instructions |
| 2 | Perform pre-treatment processes in correct sequence | 2.1 | Identify common surface soils and conditions |
| | | 2.2 | Carry out appropriate pre-treatment processes to SOPs |
| | | 2.3 | Monitor pre-treatment process parameters to ensure they remain within specified limits |

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.

- Common metals include one (1) or more of the following:**
- steel
 - copper
 - brass
 - zinc
 - cast iron
 - stainless steel

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

- wet coating
- powder coating
- electroplating
- anodising
- electroless plating
- electrophoretic coating
- hot dip metallising

Surface soils and conditions include one (1) or more of the following:

- oils
- greases
- drawing compounds
- cutting lubricants
- buffing lubricants
- rust
- scale

Pre-treatment processes include one (1) or more of the following:

- solvent degreasing
- alkaline cleaning
- pickling
- acid dipping

Process parameters include one (1) or more of the following:

- temperature
- time
- current/voltage
- solution compositions

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 MEM08002 Pre-treat work for subsequent surface coating

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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
- recognising common surface soils and conditions from given samples
- carrying out pre-treatment processes
- monitoring and adjusting the pre-treatment process parameters within specified limits.

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)
- characteristics of common metals, alloys and non-metals and procedures and techniques for identifying them
- common surface soils and conditions and the procedures for identifying the type(s) of soil on surfaces to be finished
- simple tests that can be used to assist in identifying surface soils and conditions
- pre-treatment processes and procedures applicable to a range of materials, surface soils and conditions
- parameters and procedures for monitoring pre-treatment processes.

Assessment Conditions

- Assessors must:
 - have vocational competency in pre-treating work for subsequent surface coating 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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