



Australian Government

Department of Education, Employment and Workplace Relations

MEM08002C Pre-treat work for subsequent surface coating

Release: 1

MEM08002C Pre-treat work for subsequent surface coating

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers pre-treating common ferrous and non-ferrous work.
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Application of the Unit

Application of the unit	This unit applies to pre-treatment of common ferrous and non-ferrous work for finishing by a wide variety of processes, such as wet coating, powder coating, electroplating, anodising, electroless plating, electrophoretic coating and hot dip metallising. In the pre-treatment process, adjustments to apparatus/equipment/controls include temperature settings, current/voltage and solution compositions. This unit should not be selected if Unit MEM08003C (Perform electroplating operations) has already been selected. Band: A Unit Weight: 4
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM13003B	Work safely with industrial chemicals and materials

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 material	1.1. Common metals, alloys and non-metals can be identified.
2. Identify job surface condition	2.1. Common surface soils and conditions can be identified.
3. Perform pre-treatment processes in correct sequence	3.1. Pre-treatment processes are carried out to standard operating procedures. 3.2. Pre-treatment process parameters are monitored to ensure they remain within specified limits.

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:

- reading and following routine and familiar information on standard operating procedures
- recognising common surface soils and conditions from given samples
- carrying out appropriate pre-treatment processes
- monitoring and maintaining the pre-treatment process parameters within specified limits
- following verbal instructions
- orally reporting routine information

Required knowledge

Look for evidence that confirms knowledge of:

- characteristics of common metals, alloys and non-metals and procedures and techniques for identifying them
- common surface soils and conditions
- 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 applicable to a range of materials, surface soils and conditions
- procedures for carrying out pre-treatment processes

REQUIRED SKILLS AND KNOWLEDGE

- parameters and procedures for monitoring pre-treatment processes
- hazards and control measures associated with pre-treatment
- use and application of personal protective equipment
- safe work practices and procedures

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 pre-treat common ferrous and non-ferrous materials. 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 pre-treating common ferrous and non-ferrous materials 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.

Common metals	Steel, copper, brass, zinc, cast iron, stainless steel
Surface soils and conditions	Oils, greases, drawing compounds, cutting lubricants, buffing lubricants, rust and scale
Pre-treatment processes	Solvent degreasing, alkaline cleaning, pickling, acid dipping
Process parameters	Temperature, time, currents, solution concentrate

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

Co-requisite units	

Competency field

Competency field	Surface finishing
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