



Australian Government

Department of Education, Employment and Workplace Relations

MEM08005B Prepare and produce specialised coatings

Release: 1

MEM08005B Prepare and produce specialised coatings

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers undertaking masking and jig work, determining operational parameters, and pre-treating and treating work.
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Application of the Unit

Application of the unit	<p>This unit applies to specialised production of industrial films on a variety of work pieces, often on a one-off basis. Typical of the coatings are heavy (hard) chromium or nickel, heavy electroless nickel, 'hard' anodising and selective (brush) plating. Also included is the electrodeposition of 'difficult' metals such as iron and certain alloys.</p> <p>Band: A</p> <p>Unit Weight: 4</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM08002C	Pre-treat work for subsequent surface coating
	MEM13003B	Work safely with industrial

Prerequisite units	
	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. Undertake mask and jig work	1.1. Jigs are secured and masking is adherent and stable. 1.2. Necessary auxiliary electrodes and shields are incorporated effectively. 1.3. Necessary jigs and shields are manufactured.
2. Determine operating parameters	2.1. Plating knowledge and/or specifications are applied in correctly computing operating times, currents and/or voltages.
3. Pre-treat and treat work	3.1. Work is treated in accordance with specifications using standard operating procedures.

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:

- securing the electroplating jigs
- correctly masking
- setting up auxiliary electrodes and shields
- manufacturing jigs and shields in accordance with specifications
- correctly calculating the operating parameters
- treating the work
- reading and interpreting routine information on written job instructions, specifications and standard operating procedures. May include drawings
- following oral instructions
- performing calculations using formulae

Required knowledge

Look for evidence that confirms knowledge of:

- the reasons for masking work being electroplated
- the range of materials that are used for masking purposes
- the procedures for securing the masking
- the reasons for using auxiliary electrodes and shields
- the procedures for mounting/setting up auxiliary electrodes and shields

REQUIRED SKILLS AND KNOWLEDGE

- the specifications of the jigs and shields to be manufactured
- the procedures for manufacturing jigs and shields
- the procedures and formulae for calculating operating times, currents and voltages
- the specifications of the surface finish to be achieved
- the procedures for pre-treating the work
- the procedure for treating the work after electroplating
- the pre-electroplating and post electroplating treatment specifications
- the reasons for pre-electroplating and post electroplating treatment of surfaces
- hazards and control measures associated with preparing and producing specialised coatings electrolytically
- safe workplace 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 prepare and produce specialised industrial films on a variety of work pieces, often on a one-off basis. 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 preparing and producing specialised industrial films on a variety of work pieces, often on a one-off basis 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,

EVIDENCE GUIDE	
	standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT	
<p>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.</p>	
Auxiliary electrodes and shields	<ul style="list-style-type: none"> • Soluble auxiliary anodes • Insoluble auxiliary anodes • Bi polar electrodes • Shields • Robbers

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Surface finishing
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