



Australian Government

Department of Education, Employment and Workplace Relations

MEM08004B Finish work using wet, dry and vapour deposition methods

Release: 1

MEM08004B Finish work using wet, dry and vapour deposition methods

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit applies to finishing work using a range of wet and dry organic coatings.
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Application of the Unit

Application of the unit	<p>Processing may be carried out in manual, semi or fully automatic plant. Applications may be by hand or utilising a wide range of machines or plant.</p> <p>Work is conducted under supervision.</p> <p>Where straightforward monitoring of semi or automatic machine or process is undertaken, then Unit MEM07024B (Operate and monitor machine/process) should be considered.</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. Assess and prepare components for required coating process	1.1.Coating specifications are identified from operation sheets/work procedures. 1.2.Suitability of pre-treated components for finishing process is checked according to enterprise procedures. 1.3.Components are prepared as required for finishing application. 1.4.Components are positioned/located for finishing according to enterprise procedures.
2. Perform simple mixing and estimating operations	2.1.Mixing ratios are calculated and a range of wet coatings are mixed and thinned as required to standard operating procedures. 2.2.Required coating quantities are estimated using simple surface area calculations.
3. Perform coating operation	3.1.Equipment is set up to specification using standard operating procedures. 3.2.Coating and applied curing technique are monitored to standard operating procedures. 3.3.Coating application, thickness and colour are checked and maintained for compliance with specifications.

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: <ul style="list-style-type: none"> obtaining all relevant drawings, specifications and/or instructions in accordance with work place procedures racking the components to be coated correctly in accordance with standard operating procedures calculating the correct mixing ratios for given wet coatings accurately where appropriate, mixing and thinning the given wet coatings calculating the surface area to be coated correctly

REQUIRED SKILLS AND KNOWLEDGE

- where appropriate, estimating the quantities of wet coating materials correctly
- setting up the appropriate coating equipment
- applying the coating correctly using the appropriate technique
- curing the coating correctly using the appropriate technique
- maintaining the coating thickness and colour in accordance with specifications throughout the coating operation
- checking the coating thickness and colour
- reading, interpreting and following information on written job instructions, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents
- planning and sequencing operations
- checking and clarifying task-related information
- checking for conformance to specifications
- performing numerical operations, geometry and calculations/formulae within the scope of this unit

Required knowledge

Look for evidence that confirms knowledge of:

- work to be undertaken
- coating process to be used
- coating specifications
- appropriate type of racking for the coating process
- reasons for selecting the chosen rack type
- procedures for racking components to be coated
- source of data on mixing ratios for wet coatings
- mixing ratio for the given task(s)
- function of thinners as applied to the application of wet coatings
- procedures to be followed when mixing wet coatings
- surface area to be coated
- coverage rate of the coating material to be applied
- procedures for estimating quantities of coating materials
- types of equipment used for a variety of coating processes
- appropriate coating equipment for the given task(s)
- reasons for selecting the chosen equipment
- operating procedures applicable to the selected coating equipment
- a range of coating techniques
- a range of curing techniques
- appropriate coating and curing technique for the given task(s)
- reasons for selecting the chosen coating and curing techniques
- monitoring procedures to be followed

REQUIRED SKILLS AND KNOWLEDGE

- examples of coating defects
- the causes of coating defects
- where appropriate, procedures for rectifying coating defects
- where appropriate, procedures for reporting coating defects
- coating thickness and colour to be achieved
- the means of checking coating thickness and colour
- frequency at which checks are undertaken
- hazards and control measures associated with finishing work using wet, dry and vapour deposition methods, including housekeeping
- safe work practices and procedures
- use of personal protective equipment

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 finish work using wet, dry and vapour deposition methods. 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 finishing work using wet, dry and vapour deposition methods 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.

Coating

Electrostatic powder coating, electrophoretic coating, industrial spray coating and lacquering, electroless (auto catalytic) nickel or copper plating, phosphating, chromating, galvanising, hot tinning, sputter deposition, vacuum evaporation, ion plating, paints, stains and other liquid finishes

Prepared

Visual inspection for contamination, masking out, racking, identification of correct materials to be used, ensuring cleanliness of work area and equipment, operational testing of equipment

Coating operation

Spray application, dip coating

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

Co-requisite units		

Competency field

Competency field	Surface finishing
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