



**Australian Government**

# **AURVTP3025 Mix and apply water-based refinishing materials**

**Release 1**

## AURVTP3025 Mix and apply water-based refinishing materials

### Modification History

Release	Comment
Release 1	Replaces AURV329603FA Apply water based refinishing materials Elements and Performance Criteria updated to reflect mixing of paint products

### Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes required to mix and apply water-based refinishing materials to a variety of vehicle bodies and substrates. It involves determining the causes of paint finish faults and rectifying them.</p> <p>The unit involves preparing for work and completing work processes, including clean-up and workplace documentation.</p> <p>Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.</p>
-----------------	---

### Application of the Unit

Application of the unit	<p>Work applies to refinishing technicians in a repair environment who apply water-based materials to a range of vehicles.</p> <p>Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment.</p>
-------------------------	--

### Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

Not applicable.

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
-----------------------------	--

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.
---	--

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work	<p>1.1. Workplace instructions and <i>communications</i> are used to determine job requirements, including material type, colour, quality and quantity</p> <p>1.2. <i>Workplace health and safety (WHS) requirements</i>, including <i>personal protective equipment (PPE)</i> needs, are observed throughout the work</p> <p>1.3. <i>Refinishing materials</i> are selected and inspected for quality</p> <p>1.4. Refinishing <i>tools, equipment</i> and PPE are identified and checked for correct operation</p> <p>1.5. <i>Refinishing methods</i> are determined to minimise waste, and maximise energy efficiency while completing the job</p> <p>1.6. Workplace <i>emergency procedures</i> are identified and followed when required</p>
2. Mix water-based paint colours	<p>2.1. Materials are mixed using the appropriate method</p> <p>2.2. Mixing activities are carried out according to <i>environmental requirements</i>; industry, <i>statutory and regulatory authorities' guidelines</i>; WHS legislation; and workplace <i>safe operating policies and procedures</i></p> <p>2.3. Water-based paint colours are mixed without causing damage to components or systems</p>
3. Apply water-based refinishing materials by spray-gun	<p>3.1. <i>Requirements for environment</i> for applying refinishing materials are identified and observed</p> <p>3.2. Refinishing materials are applied using recommended methods and intervals, in line with <i>information</i> from paint supplier and without causing damage to components or systems</p> <p>3.3. Refinishing materials are dried using approved methods and equipment</p> <p>3.4. Paint surface faults are removed using compounds, polishes and glazes</p> <p>3.5. Finish is produced that meets <i>specifications</i></p> <p>3.6. Surface refinishing is completed within approved time frames</p>
4. Identify and rectify paint faults	<p>4.1. Paint faults are identified according to industry and workplace procedures</p> <p>4.2. Paint fault causes are determined according to industry and workplace procedures</p> <p>4.3. Paint surface faults are removed using compounds, polishes and glazes, and rectification procedures that suit fault and type of finish</p>

<p>5. Rectify and touch up paint faults</p>	<p>5.1. <i>Materials</i> to restore paintwork to as new condition are determined from industry and supplier standards</p> <p>5.2. Damaged paintwork is rectified to blend with existing paintwork <i>quality</i> on vehicles</p> <p>5.3. Rectification operations are carried out according to industry regulations and guidelines, WHS legislation and workplace policies and procedures</p> <p>5.4. Paint faults are rectified without causing damage to components or systems</p>
<p>6. Clean up work area and maintain equipment</p>	<p>6.1. Material that can be reused is collected and stored according to workplace sustainability practices</p> <p>6.2. Waste material is removed and disposed of or stored according to statutory and workplace procedures</p> <p>6.3. Spray equipment is cleaned as specified by manufacturer, component supplier and workplace policies and procedures</p> <p>6.4. Work area is cleaned and inspected for serviceable condition according to workplace procedures</p> <p>6.5. Faulty equipment is identified and tagged according to workplace procedures</p> <p>6.6. Operator maintenance is completed according to manufacturer and component supplier specifications and workplace procedures</p> <p>6.7. Tools are maintained according to workplace procedures</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

- communication skills to follow workplace verbal instructions
- initiative and enterprise skills to recognise a workplace problem or potential problem and take action
- learning skills to identify sources of information, assistance and expert knowledge to expand skills, knowledge and understanding
- literacy skills to:
  - understand quality procedures
  - read and follow information in written job instructions, specifications, standard operating procedures, charts, lists, drawings and other reference documents
  - obtain and record required paint and paint measurements
- numeracy skills to calculate paint quantity, mixing ratios and drying times
- planning and organising skills to:
  - plan, use and follow job specifications when mixing and applying water-based refinishing materials to components
  - identify risk factors and take action to minimise them
- problem-solving skills to:
  - refer problems outside area of responsibility to appropriate person
  - seek information and assistance as required to solve problems
- self-management skills to:
  - select and use appropriate water-based refinishing materials and equipment, processes and procedures
  - recognise own limitations and seek advice
  - follow workplace policies and documentation, such as codes of practice or original equipment manufacturer (OEM) repair procedures
- teamwork skills to apply knowledge of own role to complete activities efficiently to support team activities and tasks
- technical skills to use paint workplace tools and equipment relating to refinishing vehicles or components
- technology skills to operate vehicle painting and refinishing equipment

#### Required knowledge

- WHS regulations, requirements, equipment and material relating to mixing and applying water-based refinishing materials, including personal safety requirements
- environmental protection requirements and substance disposal and storage requirements
- material safety data sheets (MSDS)
- types of water-based refinishing materials

**REQUIRED SKILLS AND KNOWLEDGE**

This section describes the skills and knowledge required for this unit.

- methods and processes for applying water-based material
- paint surface fault identification and rectification procedures
- drying methods for water-based material
- types of spray-guns
- spray-gun operation procedures and spraying techniques
- spray-gun cleaning methods
- planning processes for work required
- workplace quality processes

## 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, the Range Statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria and required skills and knowledge.

A person who demonstrates competency in this unit must be able to:

- observe safety procedures and requirements
- select methods and techniques appropriate to the circumstances
- complete preparatory activity in a systematic manner
- prepare water-based paint
- apply water-based refinishing materials
- identify paint faults and determine appropriate rectification procedures
- rectify paint faults
- apply environmental procedures.

#### Context of, and specific resources for assessment

Competency is to be assessed in the workplace or a simulated workplace environment that accurately reflects performance in a real workplace setting.

Assessment is to occur:

- using standard workplace practices and procedures
- following safety requirements
- applying environmental constraints.

Assessment is to comply with relevant:

- regulatory requirements
- Australian standards
- industry codes of practice.

The following resources must be made available for the assessment of this unit:

- workplace location or simulated workplace
- materials relevant to application of water-based refinishing materials
- equipment, hand and power tools appropriate to application of



## EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

### Overview of assessment

- water-based refinishing materials
- specifications and work instructions.

### Method of assessment

Assessment must satisfy the endorsed Assessment Guidelines of this Training Package.

Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with the application of required skills and knowledge.

Assessment methods must be by direct observation of tasks and include questioning on required skills and knowledge to ensure correct interpretation and application.

Competence in this unit may be assessed in conjunction with other units which together form part of a holistic work role.

Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate the needs of diverse clients.

Assessment processes and techniques must be culturally sensitive and appropriate to the language, literacy and numeracy capacity of the candidate and the work being performed.

## 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, 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><i>Communications</i> may include:</p>	<ul style="list-style-type: none"> <li>• email</li> <li>• telephone</li> <li>• verbal instructions</li> <li>• visual instructions</li> <li>• worksite-specific instructions</li> <li>• written instructions</li> <li>• job and task sheets.</li> </ul>
<p><i>WHS</i> requirements:</p>	<ul style="list-style-type: none"> <li>• are those prescribed under legislation, regulations, codes of practice and policies and procedures</li> <li>• may include:             <ul style="list-style-type: none"> <li>• personal protective clothing and equipment</li> <li>• use of tools and equipment</li> <li>• safe handling of material</li> <li>• use of fire-fighting equipment</li> <li>• first aid equipment</li> <li>• hazard control, including control of hazardous materials and toxic substances.</li> </ul> </li> </ul>
<p><i>Personal protective equipment</i>:</p>	<ul style="list-style-type: none"> <li>• is that prescribed under legislation, regulations, codes of practice, and workplace policies and practices</li> <li>• may include:             <ul style="list-style-type: none"> <li>• eye protection</li> <li>• personal protective clothing</li> <li>• gloves</li> <li>• respirators</li> <li>• safety shoes</li> <li>• air feed mask.</li> </ul> </li> </ul>
<p><i>Refinishing materials</i> may include:</p>	<ul style="list-style-type: none"> <li>• solid, metallic, pearl base coats</li> <li>• clear two-pack acyclic enamel</li> <li>• hardener</li> <li>• water based reducer.</li> </ul>
<p><i>Tools and equipment</i> may include:</p>	<ul style="list-style-type: none"> <li>• air pressure regulators</li> <li>• air compressors</li> <li>• spray booths</li> </ul>

**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, 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.

	<ul style="list-style-type: none"> <li>• baking ovens</li> <li>• heating and lighting systems</li> <li>• strainers</li> <li>• measuring sticks</li> <li>• ford cups</li> <li>• safety equipment</li> <li>• tinting machines</li> <li>• hand paddles</li> <li>• nylon stocking weave</li> <li>• viscosity measuring equipment</li> <li>• high-volume low-pressure spray-guns</li> <li>• gravity feed spray-guns</li> <li>• suction feed spray-guns</li> <li>• personal protective equipment</li> <li>• polishing and cleaning equipment.</li> </ul>
<b><i>Refinishing methods</i></b> may include:	<ul style="list-style-type: none"> <li>• spray-gun selection</li> <li>• equipment protection methods</li> <li>• various spraying techniques</li> <li>• drying procedures</li> <li>• paint mixing</li> <li>• compound polishing</li> <li>• detailing of surfaces.</li> </ul>
<b><i>Emergency procedures</i></b> may include:	<ul style="list-style-type: none"> <li>• emergency shutdown</li> <li>• extinguishing fires</li> <li>• workplace first aid requirements</li> <li>• worksite evacuation.</li> </ul>
<b><i>Environmental requirements</i></b> may include:	<ul style="list-style-type: none"> <li>• waste management</li> <li>• noise control</li> <li>• dust control</li> <li>• clean-up management.</li> </ul>
<b><i>Statutory and regulatory authorities' guidelines</i></b> may include:	<ul style="list-style-type: none"> <li>• statutory and regulatory regulations</li> <li>• codes of practice.</li> </ul>
<b><i>Safe operating policies and</i></b>	<ul style="list-style-type: none"> <li>• workplace safety policies and procedures</li> </ul>

**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, 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.

<b><i>procedures</i></b> may include:	<ul style="list-style-type: none"> <li>• operational risk assessment</li> <li>• toxic substances</li> <li>• electrical safety</li> <li>• machinery movement and operation</li> <li>• manual and mechanical lifting and shifting</li> <li>• working in proximity to others</li> <li>• workplace visitors.</li> </ul>
<b><i>Requirements for environment</i></b> may include:	<ul style="list-style-type: none"> <li>• requirements for temperature</li> <li>• extraction of fumes</li> <li>• cleanliness.</li> </ul>
<b><i>Information</i></b> may include:	<ul style="list-style-type: none"> <li>• verbal and written information</li> <li>• graphical instructions</li> <li>• signage</li> <li>• work schedules, plans and specifications</li> <li>• work bulletins and memos</li> <li>• MSDS</li> <li>• diagrams and sketches</li> <li>• safe work procedures relating to colour matching multi-layer clear over-base colours</li> <li>• regulatory and legislative requirements</li> <li>• automotive painting and finishing code of practice</li> <li>• engineer's design specifications</li> <li>• workplace work specifications</li> <li>• instructions issued by authorised workplace or external persons</li> <li>• Australian standards.</li> </ul>
<b><i>Specifications</i></b> may include:	<ul style="list-style-type: none"> <li>• colour, texture, depth and gloss</li> <li>• contaminant-free</li> <li>• blending into the surrounding surfaces.</li> </ul>
<b><i>Materials</i></b> may include:	<ul style="list-style-type: none"> <li>• polishing buffs and pads</li> <li>• tac-rags</li> <li>• cleaning solvents</li> <li>• polishes and glazes</li> <li>• compounds and cleaning materials</li> <li>• two-pack urethane acrylic enamels</li> <li>• clear acrylic lacquers</li> </ul>

**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, 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.

	<ul style="list-style-type: none"> <li>• paint thinners</li> <li>• paint reducers</li> <li>• cleaning materials.</li> </ul>
<i>Quality</i> may include:	<ul style="list-style-type: none"> <li>• industry standards</li> <li>• workplace standards</li> <li>• Australian standards</li> <li>• quality policy</li> <li>• workplace operations and procedures.</li> </ul>

**Unit Sector(s)**

<b>Competency field</b>	Vehicle Body
<b>Unit sector</b>	Technical – Paint

**Custom Content Section**

Not applicable.