



Australian Government

AURVTS103 Fabricate vehicle composite material components

Release: 1

AURVTS103 Fabricate vehicle composite material components

Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Application

This unit describes the skills and knowledge required to fabricate components for automotive application, using composite materials such as fibreglass and carbon fibre. It involves preparing for the task, selecting and using specialist tools and equipment, identifying composite materials, calculating material quantities, mixing and applying recommended composite materials, finishing components to workplace and customer specifications, and completing workplace processes and documentation.

The unit applies to those working in the automotive body repair industry.

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

Unit Sector

Vehicle Body Technical - Fabrication

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to fabricate vehicle composite material component	1.1 Determine job requirements from workplace instructions 1.2 Access and interpret composite information 1.3 Identify hazards associated with the work and manage risks 1.4 Select and check composite materials and equipment and personal protective equipment (PPE) for serviceability 1.5 Measure and calculate component surface area to determine required quantities of gel coat, resins, catalyst and matting 1.6 Check work area with approved ventilation for required operation and report faults to authorised personnel 1.7 Plan work to identify methods to fabricate component,

ELEMENTS	PERFORMANCE CRITERIA
	minimise waste, and use time efficiently
2. Fabricate component	2.1 Set up and prepare equipment and materials for use 2.2 Mix and apply composite materials according to manufacturer and equipment specifications to fabricate component 2.3 Fabricate component using composite materials according to workplace procedures and safety and environmental requirements, and without causing damage to vehicle and equipment 2.4 Check fabricated component against job specifications and workplace quality requirements
3. Complete work processes	3.1 Conduct final inspection according to workplace procedures and confirm vehicle is ready for use 3.2 Clear work area and dispose of or recycle materials according to workplace procedures 3.3 Complete documentation according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Learning	• Locates required sources of information efficiently.
Numeracy	• Uses basic mathematical operations, including addition, subtraction, multiplication and division to: • calculate component surface area • calculate quantities of composite materials • Determines ratios and mixing percentages.
Oral communication	• Clarifies instructions and procedures • Reports quality issues and job outcomes clearly.
Technology	• Uses specialist tools and equipment.

Unit Mapping Information

Supersedes and is equivalent to AURVTS003 Fabricate vehicle composite material components.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

Assessment Requirements for AURVTS103 Fabricate vehicle composite material components

Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- fabricate at least two different vehicle composite components, in which the work must involve at least one air intake.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to fabricate vehicle composite material components, including:
 - information provided by customer and supervisor
 - manufacturer specifications and procedures or equivalent documentation
 - composite material safety data sheets (SDS)
 - workplace procedures
- workplace procedures required to fabricate vehicle composite material components, including:
 - establishing serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:
 - examination of tools and equipment
 - storage of equipment
 - identification, tagging and isolation of faulty equipment
 - disposal of excess materials
 - recycling procedures
- work health and safety (WHS) requirements relating to fabricating vehicle composite material components, including procedures for:
 - selecting and using personal protective equipment (PPE)

- using tools and equipment
- satisfying ventilation requirements for work area
- using safety data sheets (SDS) for composite materials
- handling and storing hazardous resins and chemicals
- environmental requirements, including procedures for trapping, storing and disposing of resins, chemicals and waste materials produced during fabrication process
- equipment relating to fabricating vehicle composite material components, including:
 - release agents
 - measuring equipment
 - composite specialist tools
 - mixing containers
 - moulds and jigs
- types and features of composite materials, including:
 - gel coats
 - resins
 - catalysts
 - composite matting
- fabrication methods and techniques, including:
 - hand and machine operations
 - mixing and measuring composite materials
 - mould and plug usage
- procedures for final inspection of fabricated composite components.

Assessment Conditions

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

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the composite components that they have fabricated for vehicles, e.g. work orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive repair workplace or simulated workplace
- workplace instructions
- PPE required to fabricate composite components
- SDS for composite materials
- materials to fabricate composite components
- two different vehicle composite components to be fabricated

- tools, equipment and materials tools, equipment and materials appropriate for fabricating vehicle composite material components.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>