



Australian Government

AUMGTM008 Bond and repair fibreglass components

Release: 1

AUMGTM008 Bond and repair fibreglass components

Modification History

Release	Comment
Release 1	Unit updated to reflect the new standards for Training Packages Replaces AUMGTM3008 Bond and repair components using fibreglass reinforced plastic techniques

Application

This unit describes the performance outcomes required to bond and repair components using fibreglass reinforced plastics (FRP) techniques.

It applies to those in an automotive and related component manufacturing environment and involves the application of skills and knowledge at a specialist level.

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

Competency Field

Manufacturing - Bus, Truck and Trailer

Unit Sector

Technical - Manufacture

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section
1. Plan the job	1.1 Items to be bonded and repaired are identified from work orders 1.2 FRP <i>materials and equipment</i> are identified, selected and prepared 1.3 Component surface area is calculated and FRP materials are prepared 1.4 Required quantities of gel-coat, resins, catalyst and matting

Elements	Performance Criteria
	are calculated 1.5 Correct set-up and facilities of ventilated work area are confirmed and faults and non-compliances are reported
2. Bond and repair components	2.1 Workplace procedures are identified and followed 2.2 FRP edges and surfaces are prepared according to workplace procedures 2.3 FRP materials are mixed in approved containers 2.4 FRP materials are applied according to workplace procedures 2.5 Components are finished according to workplace quality procedures
3. Complete work processes	3.1 Equipment is cleaned and stored according to workplace procedures 3.2 Work area is cleaned, and waste materials are disposed of or recycled according to workplace procedures 3.3 Completed FRP component is checked against job specifications 3.4 Workplace documents are completed according to procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Skills	Description
Reading skills to:	- interpret work health and safety (WHS) and workplace procedures, job instructions and component specifications - interpret safety data sheets (SDS) - information about FRP application processes.
Writing skills to:	- legibly complete faulty equipment tags - complete work sheets and FRP materials list - prepare an FRP repair plan.
Oral communication skills to:	- use FRP terminology in the workplace - report faulty FRP application equipment.
Numeracy skills to:	- calculate and record surface area - calculate and record required FRP materials, quantities and percentages - identify component specifications - identify part numbers.

Skills	Description
Digital literacy skills to:	• use digital scales • use workplace computer systems.
Planning and organising skills to:	• prepare FRP application equipment, materials and work area • ensure FRP materials are correctly calculated and identified.
Problem-solving skills to:	• resolve FRP problems and meet job outcomes • interpret and apply work instructions to ensure FRP materials are correctly mixed.

Range of Conditions

This section specifies work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Materials and equipment</i> must include:	• catalyst • FRP specialist tools • gel-coats and pigments • measuring equipment for bonding and repairing fibreglass components • mixing containers for bonding and repairing fibreglass components • reinforced matting • release agents • resins.
<i>Workplace procedures</i> must include:	• use of FRP equipment • WHS requirements to bond and repair fibreglass components.

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=bd587669-08b3-4cd5-85f0-f9fa0c6304c1>

Assessment Requirements for AUMGTM008 Bond and repair fibreglass components

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Performance Evidence

Before competency can be determined, individuals must have competently bonded and repaired components using fibreglass reinforced plastics (FRP) materials on a minimum of two occasions.

Individuals must demonstrate they can:

- interpret bonding and repair requirements from work sheets
- calculate surface areas and FRP materials
- prepare surfaces for FRP activities
- mix and apply FRP materials according to specifications, work health and safety (WHS) requirements and workplace procedures
- bond and repair components according to WHS and environmental requirements
- finish FRP surface to job specifications according to WHS and environmental requirements.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- WHS and environmental requirements relating to bonding and repairing fibreglass components, including relevant personal protective equipment (PPE)
- procedures for measuring and calculating FRP-related requirements
- types and applications of FRP composite materials
- FRP bonding, repair and surface finishing procedures for fibreglass components.

Assessment Conditions

Assessors must satisfy SNR/AQTF assessor requirements.

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

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the fibreglass components that they have bonded and repaired, e.g. repair work sheets.

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 manufacturing workplace or simulated workplace
- workplace instructions detailing work to be performed
- PPE relevant to the work to be performed
- FRP materials, tools and equipment relevant to the work to be performed
- components that require FRP bonding and repair.

Links

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