



Australian Government

**Assessment Requirements for
PMBTECH405 Repair damaged
fibre-composites structures**

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to PMBTECH405B Repair damaged fibre-composites structures

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and demonstrate the ability to:

- read and interpret insurance documentation, technical information, product specifications, material labels and safety data sheets (SDS)
- assess product damage, accessibility repair options and costs
- determine materials and process that will meet repair requirements, including:
 - cosmetic damage
 - structural damage
- confirm suitability of combination of materials and process to meet requirements
- prepare for and make repairs
- apply technical knowledge to recognise, anticipate and rectify quality, materials and process problems within area of responsibility
- make adjustments to remedy faults and non-conformity
- identify hazards and apply relevant hazard controls
- communicate effectively with team/work group and supervisors
- take samples
- complete workplace records.

Knowledge Evidence

Must provide evidence that demonstrates knowledge relevant to their job sufficient to fulfil their job role, including knowledge of:

- repair techniques, including:
 - surface and part preparation
 - laminating, reinforcing and strengthening techniques
 - filling and joining techniques
 - surface preparation for paint, gelcoat and flowcoat
 - detailing for customer delivery
- rectification procedures for repair of marine, automotive, aerospace, industrial and architectural mouldings
- factors which may affect product quality or production output and appropriate remedies

- characteristics of materials and their behaviour in relation to process conditions and stages of production
- critical materials properties and process variables in relation to the process requirements and the end product
- material and equipment conditions which may lead to out-of-specification production
- impact of variations in raw materials and equipment operation in relation to final product
- changes to materials at various stages of production
- quality requirements at each production stage
- routine and non-routine problems that may arise, the range of possible causes and appropriate actions
- organisation procedures relevant to the work environment/job role
- hierarchy of control
- hazards that may arise in the job/work environment and:
 - their possible causes
 - potential consequences
 - appropriate risk controls.

Assessment Conditions

- The unit should be assessed holistically and the judgement of competence shall be based on a holistic assessment of the evidence.
- In all plants it may be appropriate to assess this unit concurrently with units such as:
 - teamwork
 - communication
- Where the assessee does not currently possess evidence of competency in *PMBPROD247 Hand lay up composites*, it may be co-assessed with this unit.
- The collection of performance evidence:
 - should occur over a range of situations which include typical disruptions to normal, smooth operation of an operating plant
 - will typically include a supervisor/third-party report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
 - must include the use of an appropriate industrial item of equipment requiring demonstration of operation, start and stop procedures and responding to problems
 - may use industry-based simulation for all or part of the unit particularly where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

- Assessment in a simulated environment should use evidence collected from demonstration of skills and one or more of:
 - walk-throughs
 - pilot plant operation
 - industry-based case studies/scenarios
 - ‘what ifs’.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- In addition the assessor or anyone acting in subject matter expert role in assessment shall demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they shall assess with a subject matter expert who does meet these requirements.
- Technical competence can be demonstrated through one or more of:
 - relevant VET or other qualification/Statement of Attainment
 - appropriate workplace experience undertaking the type of work being assessed under routine and non-routine conditions
 - appropriate workplace experience supervising/evaluating the type of work being assessed under routine and non-routine conditions
- Currency can be demonstrated through one or more of:
 - being currently employed undertaking the type of work being assessed
 - being employed by the organisation undertaking the type of work being assessed and having maintained currency in accordance with that organisation’s policies and procedures
 - having consulted/had contact with an organisation undertaking the type of work being assessed within the last twelve months, the consultation/contact being related to assessment
 - conducting on the job training/assessments of the type of work being assessed
 - being an active member of a relevant professional body and participating in activities relevant to the assessment of this type of work.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>