



Australian Government

PMBPROD235E Use materials and process knowledge to complete work operations

Release: 1

PMBPROD235E Use materials and process knowledge to complete work operations

Modification History

Release 1. Unit code changed. Application changed. Elements and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMBPROD235 Use materials and process knowledge to complete work operations.

Application

This unit describes the skills and knowledge required to apply polymer materials and process knowledge to operations.

This unit applies to an experienced technician working alone or as part of a team.

The unit principally refers to the introduction of polymers and processing technology, and can be customised for a particular thermoplastic, or rubber process (not used for composites).

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil

Competency Field

Production – Rubber Processing, Thermoplastic Processing

Elements and Performance Criteria

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Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

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1. Check work requirements	1.1 Set production processes from job specifications and according to workplace documentation and procedures 1.2 Identify work to be done from job specifications 1.3 Identify priority order in which jobs will be done according to workplace procedures 1.4 Identify and locate materials to be used and their physical forms from job specifications 1.5 Acquire necessary equipment and tools and identify appropriate work-checking processes from job specifications 1.6 Identify and follow safety requirements for materials and process to be employed
2. Follow production process	2.1 Follow workplace procedures to support production process 2.2 Identify critical parts of production process from job specifications and workplace procedures 2.3 Identify and apply operating principles behind equipment to be used from equipment specifications
3. Identify product features	3.1 Inspect products for compliance with quality specifications 3.2 Identify products in terms of end purpose and relationship to workplace production output and economic value 3.3 Relate features of products to production process
4. Store equipment, materials and product	4.1 Store equipment, materials and products according workplace storage procedures 4.2 Apply waste management strategies to collect excess, discarded or nonconforming materials to be disposed of, recycled or reprocessed according to workplace procedures 4.3 Clean equipment and work area according to equipment specifications and workplace procedures
5. Respond to process control variances	5.1 Recognise and log process control variances and their causes 5.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 5.3 Accurately maintain records and logbooks

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6. Shut down operations	6.1 Differentiate between routine and emergency shutdown situations to determine procedures to follow 6.2 Demonstrate procedures to be followed in an emergency shutdown of process 6.3 Demonstrate alert procedures required in emergency shutdown of process 6.4 Perform routine shutdown according to workplace shutdown procedures 6.5 Notify relevant personnel of shutdowns according to workplace communication protocols 6.6 Accurately complete shutdown-related documentation

Foundation Skills

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

- Numeracy skills to interpret technical information and equipment processes.
- Reading skills to interpret job specifications and instructions and workplace procedures.
- Writing and oral communication skills to record and report on materials and process operations, including shutdown procedures and process control variances.

Other foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to PMBPROD235 Use materials and process knowledge to complete work operations.

Links

Companion Volume implementation guides are found in VETNet –

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

Assessment Requirements for PMBPROD235E Use materials and process knowledge to complete work operations

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- use materials and process knowledge to complete work operations at least once.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- types of products made with different processes and different polymers
- normal operational practices for equipment, materials, processes and procedures
- the criteria for overall process/equipment readiness for the process or equipment being used
- production workflow sequences and materials demand
- the importance of material properties and qualities
- the importance of process conditions
- physical forms of materials and the impact those forms have on production processes
- key variables that may affect product quality and production output, including changes to polymer materials during processing
- typical process and product problems, including early warning signs, possible causes and corrective actions
- organisational procedures relevant to the work environment or job role, including procedures for the emergency shutdown of equipment
- hazards, including materials and process hazards for the polymers in use, that may arise in the job or work environment, and:
 - their possible causes
 - potential consequences
 - appropriate risk controls.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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