



Australian Government

PMBPROD252E Operate polymer compounding equipment

Release: 1

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Modification History

Release 1. Unit code and title changed. Application changed. Elements and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMBPROD252 Operate compounding equipment.

Application

This unit describes the skills and knowledge required to operate compounding equipment to measure and combine polymer resins with colourants, stabilisers, flame retardants or other additives.

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

This unit principally refers to the ability to apply operating procedures accurately and consistently and, combined with polymer processing knowledge, achieve consistency in production.

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 – Polymer Technology

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Check work requirements	1.1 Identify work requirements from production request or job specifications 1.2 Verify materials, including quantities, and equipment meet requirements for job 1.3 Identify and perform housekeeping tasks in preparation for work to be undertaken 1.4 Perform pre-operational checks including checking for and acting on hazards

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
2. Operate equipment	2.1 Check process is operating according to equipment specifications and job requirements 2.2 Monitor and maintain supply of materials to support operation of equipment 2.3 Follow checking procedures to confirm if output meets job specifications and quality standards 2.4 Clean equipment and work area according to operational and workplace procedures
3. Respond to process control and product variances	3.1 Recognise and log process control variances and their issues 3.2 Accurately maintain records and logbooks

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 readings, and verify materials measurements.
- Reading skills to interpret specifications and workplace procedures.
- Writing and oral communication skills to record and report on polymer compounding equipment operations.

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 PMBPROD252 Operate compounding equipment.

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 PMBPROD252E Operate polymer compounding equipment

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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:

- operate polymer compounding equipment at least once to meet job specifications.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the function of polymer compounding equipment and ancillary equipment
- compounding behaviour of common polymers and additives
- principles of the polymer mixing and compatibilization operation
- measuring devices and procedures for checking measurements
- methods for sampling of output and standard testing regimes
- common types of compounding machinery, including ‘named’ mixing units and specialised extrusion and pelletising combinations
- key variables that may impact product quality and production output
- typical quality standards at each stage of production
- 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 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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