



Australian Government

PMBPROD253E Operate an internal mill blender

Release: 1

PMBPROD253E Operate an internal mill blender

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 PMBPROD253 Operate an internal mill blender.

Application

This unit describes the skills and knowledge required to operate an internal mill blender (such as Intermix® and Banbury® machines) to prepare rubber compounds for production processes.

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

The unit principally refers to the operation of internal mixing machines and should cover knowledge across multiple machine types even if assessment is focused on a particular internal mixing machine type.

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 – Belt Production

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 materials requirements, including base raw materials, additives, curatives and accelerators, from job specifications 1.2 Identify internal mill blending equipment requirements from job specifications and workplace procedures 1.3 Plan production process and task sequence including timing of quality checks to meet work requirements 1.4 Perform pre-operational checks including checking for and acting on hazards

Elements Elements describe the essential outcomes.	Performance Criteria Performance criteria describe the performance needed to demonstrate achievement of the element.
2. Conduct pre-startup checks	2.1 Check safety gates and guards are in position and working according to equipment specifications 2.2 Verify materials are correct from job specifications 2.3 Check control panel to ensure all variable settings are within guidelines 2.4 Undertake other pre-startup checks according to equipment specifications and job requirements
3. Weigh materials	3.1 Check scales are zeroed according to equipment specifications 3.2 Check scales and feed mechanisms are clean to ensure sources of contamination are removed 3.3 Accurately weigh powders, rubber and other materials from job specifications 3.4 Ensure correct quantity is delivered via rubber feed from job and equipment specifications
4. Operate internal mill blender equipment	4.1 Start machine safely and correctly according equipment instructions 4.2 Check mixing is occurring correctly against job specifications 4.3 Monitor control panel to ensure equipment is operating as expected 4.4 Accurately complete logs and records 4.5 Notify relevant personnel when cycle is close to completion 4.6 Apply waste management strategies to collect and segregate scrap, trim and other materials according to workplace procedures 4.7 Clean equipment and work area according to equipment specifications and workplace procedures 4.8 Pause and stop machine cycle in normal and abnormal circumstances according to workplace and emergency procedures
5. Liaise with relevant mill operator personnel	5.1 Advise mill operator personnel that compound/batch is being made 5.2 Ensure that batch is sampled and correctly labelled according to workplace procedures 5.3 Communicate any unexpected process control variances or production events to required personnel

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
6. Respond to process control variances	6.1 Recognise and log process control variances and their causes 6.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 6.3 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 measurements and perform measurement tasks.
- Reading skills to interpret specifications and workplace procedures.
- Writing and oral communication skills to record and report on internal mill blender 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 PMBPROD253 Operate an internal mill blender.

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 PMBPROD253E Operate an internal mill blender

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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 an internal mill blender at least once to meet job specifications.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the functions of internal mill blending equipment and ancillary equipment
- principles of operation of the equipment
- the criteria for overall process/equipment readiness for the process or equipment being used
- production workflow sequences for process planning and materials demand
- processing behaviour of polymers and the role of additives
- the potential effects of variations in raw materials and equipment operation including impact on quality of product
- key variables that may affect product quality and production output, including:
 - speed
 - temperature
 - amperage
 - pressure
 - output rate
 - product integrity
- 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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