



Australian Government

PMBPROD246E Hand mix materials

Release: 1

PMBPROD246E Hand mix materials

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 PMBPROD246 Hand mix materials.

Application

This unit covers the skills and knowledge required to hand mix polymer materials, with the exception of composites, in the plastics or rubber sectors.

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

The unit principally refers to hand mixing being a stage of production for special jobs or limited production runs, and can involve dry powders, liquids, or polymer masterbatches, for colourants and special properties when the product is moulded.

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 – Generic (except Composites)

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, including base raw materials and required additives, to be included in hand mixing process from job specifications 1.2 Identify hand mixing equipment and components, including those used for materials measurement, preparation and mixing, from job specifications 1.3 Plan production process and task sequence and set quality standards based on expected characteristics of blended material 1.4 Identify process for delivery of material to production area from job requirements and workplace safe handling procedures

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	1.5 Perform pre-operational checks including checking for and acting on hazards
2. Conduct hand mixing operations	2.1 Verify equipment information, production process, materials and required quality specifications against job specifications 2.2 Check process is operating as expected against job requirements and verify changes to materials at each stage of blending 2.3 Ensure output meets job specifications and quality standards 2.4 Transfer hand mixed materials to location of use and follow established methods to pour 2.5 Apply waste management strategies to collect excess, discarded or nonconforming materials to be disposed of, recycled or reprocessed according to workplace procedures 2.6 Clean equipment and work area according to equipment specifications and workplace procedures
3. Respond to process control variances	3.1 Recognise and log process control variances and their causes 3.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 3.3 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 specifications and measure materials.
- Reading skills to interpret specifications and workplace procedures.
- Writing and oral communication skills to record and report on hand mixing 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 PMBPROD246 Hand mix materials.

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 PMBPROD246E Hand mix materials

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 PMBPROD246 Hand mix materials.

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:

- hand mix materials at least once to meet job specifications.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- principles of hand mixing materials
- types and applications of materials commonly mixed by hand
- types of measuring systems and devices and their applications
- the ways in which production processes and product quality are driven by the characteristics of commonly blended materials
- the criteria for pre-operational checks relating to the process or equipment being used
- techniques for safe handling of materials
- impact of incorrect or faulty materials on mixture
- production workflow sequences and materials demand
- key variables that may affect product quality and production output:
 - atmospheric conditions
 - sequencing of material additions to the mix
 - volumes or mass of materials being mixed
 - mixing time
 - amount of moisture
 - product quality
- typical process and product problems, including early warning signs, possible causes and corrective actions:
 - incorrect material composition
 - over- or under-mixing
 - faulty equipment
 - temperature variations
 - variations in materials
 - variations in setting times

- organisational procedures relevant to the work environment or job role
- hazards such as contamination that may arise in the job or work environment, and:
 - their possible causes or sources
 - 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.

Links

Companion Volume implementation guides are found in VETNet – -

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