



Australian Government

MEM48027 Select non-metallic materials for engineering applications

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSATCM516A Select non-metallic materials for engineering applications.

Application

This unit of competency defines the skills and knowledge required to recognise common non-metallic materials used in engineering, assist in the selection of a material for a specific application, and use test results to evaluate the properties of materials.

It applies to metallurgist technician level activities in manufacturing and engineering environments where the metallurgist.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Metallurgy

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine job requirements	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from work information
2. Select non-metallic materials for specific applications	2.1 Determine the engineering requirement for the specific application in consultation with others 2.2 Select material based on the requirement and consideration of

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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	principal properties and further processing 2.3 Confirm selection according to standard operating procedures (SOPs)
3. Verify selected non-metallic material as fit for purpose	3.1 Identify appropriate tests for the required properties 3.2 Arrange testing of materials with internal or external parties based on testing requirements 3.3 Analyse test results and confirm or modify material choices based on test outcomes

Foundation Skills

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

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

There is no Range of Conditions for this unit of competency.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSATCM516A Select non metallic materials for engineering applications.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>