



Australian Government

MSTGN4027 Perform routine textile testing and analyse results

Release: 1

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Modification History

Release 1. Unit Code and Application changed. Prerequisite units removed. Elements and Performance Criteria simplified with Element 1 removed. Foundation Skills field populated. Range of Conditions removed with relevant information moved to Performance or Knowledge Evidence. Assessment Requirements clarified with generic foundation skills statements moved to appropriate section and duplication with Performance Criteria removed. Supersedes and is not equivalent to MSTTX4003 Perform routine textile testing and analyse results.

Application

This unit describes the skills and knowledge required to determine textile testing requirements, conduct routine tests and analyse results. Tests are conducted to determine a range of outcomes such as fibre mass, shrinkage, length, density, abrasion, strength, colour performance, finish and other quality standards.

This unit applies to individuals working in accordance with predetermined industry or enterprise test practices and procedures.

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

Competency Field

Generic

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. Determine testing requirements	1.1 Interpret textile specifications from work documentation 1.2 Identify textile testing requirements and rationale and select appropriate test methods 1.3 Determine materials, processes, equipment and timelines appropriate to test requirements 1.4 Clarify testing requirements or specifications using appropriate information resources
2. Undertake textile tests	2.1 Prepare materials, tools and equipment required to conduct selected test in accordance with procedures and relevant manufacturer instructions

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	2.2 Prepare materials for testing according to testing requirements 2.3 Check test environment meets specifications and undertake test in accordance with testing requirements and workplace procedures 2.4 Record test procedures and outcomes in accordance with workplace recording procedures 2.5 Identify and record all deviations from standard test procedures or report deviations to appropriate personnel
3. Analyse test results and complete procedures	3.1 Interpret and assess test results against industry and design specifications 3.2 Check and validate deviations in test results, record and report deviations in accordance with workplace procedures 3.3 Check inconsistent test results for compliance with test specifications, and conduct tests again as required 3.4 Record test results and clean test equipment and work area in accordance with workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret technical and detailed information about textiles
- Writing skills to record factual information in workplace documents
- Numeracy skills to interpret and compare testing data.

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

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTGN4027 Perform routine textile testing and analyse results

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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:

- determine testing requirements and appropriate methods for at least five different textiles
- conduct, document and analyse tests on at least three different textile materials, to include testing for at least two of the following:
 - fibre thickness
 - fibre length
 - linear density
 - abrasion
 - dimensional change
 - chemical properties
 - strength
 - seam opening
 - colour fastness (wash, perspiration, rubbing and light)
 - mass per unit area.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- textile industry terminology
- standard textile test and results analysis procedures to determine properties, including weight, length ratio, fibre mass, shrinkage, chemical properties, fibre strength, seam opening, colour fastness properties, strength and abrasion
- types of textile test equipment
- international specification standards
- textile production processes
- testing documentation requirements.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - textile specifications
 - textile materials to be tested
 - testing materials, tools and equipment.

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

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