



Australian Government

MSTTX3001 Identify quality and types of textile fibres, yarns and fabrics

Release: 2

MSTTX3001 Identify quality and types of textile fibres, yarns and fabrics

Modification History

Release 2. Supersedes and is equivalent to MSTTX3001 Identify quality and types of textile fibres, yarns and fabrics (Release 1).

Pre-requisite unit, MSTGN2011 Identify fibres, fabrics and textiles used in the TCF industry, is **superseded by** MSTGN2013 Identify fibres, fabrics and textiles used in the TCF industry.

Release 1. Supersedes and is equivalent to LMTTX3001B Identify quality and types of textile fibres, yarns and fabrics.

Application

This unit of competency covers the skills and knowledge required to identify the quality and types of fibres, yarns and fabrics used and produced in textile production.

The unit of competency applies to a range of natural and synthetic materials which may be used for knitted, tufted, woven or non-woven products. It includes conducting simple tests to identify yarn and fabric types and properties. Testing under this unit is for production purposes only and does not cover skills required for specialised testing.

Work may be conducted in small to large scale enterprises and may involve individual and team related activities.

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

Pre-requisite Unit

MSTGN2013 Identify fibres, fabrics and textiles used in the TCF industry

Competency Field

Textile production

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the Performance criteria describe the performance needed to

essential outcomes.		demonstrate achievement of the element.	
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 specifications, drawings, job sheets or work instructions
2	Prepare to determine fibre, yarn and fabric performance	2.1	Use identification methods to identify fibres, yarns and fabrics, and identify their physical and chemical properties
		2.2	Identify performance characteristics of various fibres, yarns and fabrics
		2.3	Identify common fibre and yarn faults and the problems they cause in fabric production or the finished product
		2.4	Use quality indicators to determine fibre, yarn and fabric quality, identify quality faults and take appropriate action
		2.5	Conduct performance testing of fibre, yarn and fabric in accordance with workplace procedures
3	Determine uses, care and labelling requirements	3.1	Distinguish performance characteristics and appropriate uses of fabrics
		3.2	Identify applicable fabric finishes and implications for care, handling and use
		3.3	Identify cleaning requirements
		3.4	Identify labelling requirements according to workplace procedures and Australian Standards

Foundation Skills

This section describes those required skills (language, literacy and numeracy) 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.

Workplace procedures include one or more of the following:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- SOPs
- work instructions
- personal protective equipment (PPE)
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control and recycling
- WHS practices

Australian Standards include:

- the relevant industry or Australian Standards that are current at the time this unit is being undertaken

Identification methods include one or more of the following:

- visual inspection
- tactile analysis
- acetone
- burn test
- microscopy

Fabrics include one or more of the following:

- component fabrics used in making final textile products, for example, backing materials and linings or a final textile product
- knitted fabrics, including weft knits and warp knits
- woven fabrics, including plain, twill, satin, dobby and jacquard
- non-woven fabrics, including felts, nets, braids and

bonded

Quality indicators include three or more of the following:

- straightness of grain
- even/uneven yarn
- slippage
- length of fibres
- pilling
- fabric resilience
- workability
- wash testing
- shade
- tensile properties
- handling

Faults include one or more of the following:

- ends out
- weft faults
- tucking
- unlevel
- bad edges
- thick and thin yarn
- colour or design faults

Performance testing includes two or more of the following:

- light
- heat
- chemical reaction
- absorbency

Finishes include one or more of the following:

- crease resistance
- fire retardancy
- water proofing/resistance
- printing
- dyeing
- surface finishes
- lubricating
- waxing
- anti-static
- anti-pilling
- spot and stain resistant
- anti-slip

- mildew and rot proof finish
- permanent creasing or press
- shrink resistance
- mercerising
- moireing

Handling fabrics includes one or more of the following:

- cutting
- dyeing
- printing
- pressing
- lining
- assembling
- sewing
- packaging and storage

Production requirements include one or more of the following:

- sewing requirements, such as needle size and type, machine type and thread type
- binding, joining and fusing requirements
- lining and reinforcement
- seam types
- material form, such as yarn, top, piece and loose stock

Care and cleaning includes one or more of the following:

- dry cleaning
- washing
- drying
- ironing
- steam cleaning
- use of stain removers
- special requirements

Unit Mapping Information

Release 2. Supersedes and is equivalent to MSTTX3001 Identify quality and types of textile fibres, yarns and fabrics (Release 1).

Release 1. Supersedes and is equivalent to LMTTX3001B Identify quality and types of textile fibres, yarns and fabrics.

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 MSTTX3001 Identify quality and types of textile fibres, yarns and fabrics

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include:

- reading and following work instructions, standard operating procedures (SOPs), safe work practices
- applying relevant standards
- identifying performance characteristics of a sample of at least twelve (12) varied fibres, yarns and fabrics
- identifying common fibre and yarn faults and the problems they cause in fabric production or the finished product
- using quality indicators to determine fibre, yarn and fabric quality, identify quality faults and appropriate action to deal with faults, of at least twelve (12) examples
- conducting performance testing of at least six (6) examples of fibre, yarn and fabric in accordance with workplace procedures
- checking fibres yarns and fabrics against quality standards
- distinguishing performance characteristics and appropriate uses of at least six (6) fabrics
- identifying at least four (4) fabric finishes relevant to an identified context and implications for care, handling and use
- determining the cleaning and labelling requirements of at least six (6) fabrics, according to workplace procedures and Australian Standards.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- relevant Australian Standards
- types of fibre, yarn and fabric and their care requirements
- performance, uses and characteristics of fibres, yarns and fabrics:
 - stretch
 - abrasion resistance

- wearability
- absorbency
- durability
- elasticity
- fineness
- heat sensitivity
- shrink resistance
- wrinkle recovery
- thermal properties (conductivity, ironing temperature and flammability)
- ease of care
- drape quality
- colour fastness
- strength
- information resources on fibres, yarn and fabrics
- quality indicators:
 - straightness of grain
 - even/uneven yarn
 - slippage
 - length of fibres
 - pilling
 - fabric resilience
 - workability
 - wash testing
 - shade
 - tensile properties
 - handling
- types of performance testing
- types of fabric finishes
- quality standards and practices
- workplace procedures
- recording and reporting practices.

Assessment Conditions

- Assessors must:
 - satisfy the assessor competency requirements that are in place at the time of the assessment, as set by the VET regulator
 - have vocational competency in identifying quality and type of fibres, yarns and fabrics, at least to the level being assessed, with relevant industry knowledge and experience.

- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.

Links

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