



Australian Government

MSTTX4005 Undertake textile colouration and finishing

Release: 1

MSTTX4005 Undertake textile colouration and finishing

Modification History

Release 1. Supersedes and is equivalent to LMTTX4005A Undertake textile colouration and finishing

Application

This unit of competency covers the skills and knowledge associated with selecting and applying textile colourisation and finishing processes.

The unit of competency applies to colouration and finishing processes in a production environment, using standard procedures to meet predetermined design and quality specifications. Colouration and finishing processes may be undertaken on a wide range of fabric types as well as fibres, yarns or garments.

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

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

Pre-requisite Unit

MSTTX4002 Understand and apply textile science

Competency Field

Textile production

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Determine job requirements

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|-----|--|
| 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 undertake colouration and finishing	2.1	Interpret design and textile property specifications that impact on colouration and finishing
		2.2	Identify technical aspects of production requirements
		2.3	Use colour charts and make calculations to determine colour formulas and production material quantities
		2.4	Determine materials, tools and equipment required for finishing process
		2.5	Confirm all specifications and calculations with appropriate personnel, as required
3	Undertake colouration process	3.1	Set up equipment, tools and materials according to specifications for work and workplace procedures
		3.2	Check fabrics to be coloured against quality standards
		3.3	Use colouration techniques to produce sample pieces according to specifications
		3.4	Check coloured samples and adjust colour formula, if required, to meet specifications
		3.5	Undertake colouration techniques to meet design specifications and minimise impact on textiles
4	Undertake finishing process	4.1	Set up equipment, tools and materials according to specifications for work and workplace procedures
		4.2	Check fabrics to be finished against quality standards
		4.3	Use finishing techniques to produce sample pieces according to specifications
		4.4	Check finishing samples and adjust finishing process, if required, to meet specifications

		4.5	Undertake finishing techniques to meet design specifications and minimise impact on textiles
5	Evaluate colouration and finishing processes	5.1	Assess samples against colouration and finish specifications
		5.2	Check colours and finish to identify any design or production problems
		5.3	Analyse product outcomes and identify opportunities for improvement
		5.4	Evaluate production process to identify opportunities for improvement
		5.5	Document formulas, processes and improvements and store information for later use

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
- 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
- Specifications impacting on colouration include one or more of the following:**
- type of fibres (plant, animal or synthetic)
 - chemical properties
 - physical properties
 - fibre pre-treatments
 - type of yarn
 - type of fabric
 - type of dye
- Specifications impacting on finishing include one or more of the following:**
- type of fibres (plant, animal or synthetic)
 - chemical properties
 - physical properties
 - fibre pre-treatments
 - type of fabric
- Colouration and finishing techniques include one or more of the following:**
- bleaching
 - skein dyeing
 - bath dyeing
 - batch processing
 - continuous and semi continuous dyeing
 - drying and curing
 - thermasol process
- Resources and search techniques include one or more of the following:**
- SOPs
 - safety procedures
 - job lists
 - manufacturer manuals
 - specifications
 - textile production patterns and machine settings
 - Australian and international Standards
 - trade journals
 - quality system documentation
 - customer requirements
 - workplace and site procedures and manuals
 - industry manuals

- codes of practice
- awards
- legislation
- plans
- diagrams
- log books
- hard copy or electronic data
- key personnel, supervisors, trainers and colleagues
- using colour index, table of contents, and numbering and classification systems
- computer database search or look-up, questioning and cross-referencing
- basic techniques to identify relevant information, including skimming and scanning, and identifying key words and ideas

Appropriate personnel include one or more of the following:

- supervisor
- manager
- trainer
- designers

Unit Mapping Information

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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 MSTTX4005 Undertake textile colouration and finishing

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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 and selecting relevant textile colourisation and finishing processes required to achieve specifications
- determining potential impact of colourisation and finishing processes on textiles and associated materials
- determining standard procedures to overcome or minimise impact on textiles and associated materials
- conducting colourisation and finishing processes to achieve specification on at least two (2) occasions
- checking colouration and finishing samples and adjusting process, if required, to meet specifications
- recognising, rectifying and reporting deviations from specifications
- achieving colour matching and finishing outcomes that meet specifications and workplace procedures
- evaluating colouration and finishing processes
- documenting formulas, processes and improvements and store information for later use.

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
- textile industry terminology
- physical properties of textiles and associated materials
- chemical properties of textiles and associated materials
- tools and equipment:
 - dyes
 - chemical
 - dyeing equipment

- finishing equipment
- standard textile colourisation processing techniques
- standard finishing techniques
- standard textile test procedures
- textile test equipment
- international specification standards
- quality criteria
- quality practices
- workplace procedures
- production processes
- 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 textile colouration and finishing, 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.

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