

PERFORM TEXTILE TESTING

UNIT CODE: ENG/OS/TEX/CR/01/6/A

Unit description

This unit describes the competencies required by a Textile technician to perform textile testing. It involves competencies required to test textile fibre, textile yarn, inspect grey fabric properties, test processed fabric and inspect finished fabric.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes which make up workplace function	PERFORMANCE CRITERIA These are assessable statements which specify the required level of performance for each of the elements <i>(Bold and italicized terms are elaborated in the Range)</i>
1. Perform textile fibre testing	<p>1.1 Test environment is conditioned according to specified standard.</p> <p>1.2 <i>Fibre test</i> is identified according to job specification.</p> <p>1.3 Fibre testing standards are obtained according to organisational procedures.</p> <p>1.4 <i>Fibre testing equipment</i> are selected and set up according test specification.</p> <p>1.5 Fibre samples are obtained according to test specification.</p> <p>1.6 Fibre samples are conditioned according to test specification.</p> <p>1.7 Prescribed test is carried out according to job specification.</p> <p>1.8 Test results are recorded according to standard operating procedure (SOP).</p>
2. Perform textile yarn testing	<p>2.1 Test environment is conditioned according to specified standard.</p> <p>2.2 <i>Textile yarn test</i> is identified according to job specification.</p> <p>2.3 Textile <i>yarn testing equipment</i> are selected and set up according test specification.</p> <p>2.4 Textile <i>yarn samples</i> are obtained according to test specification.</p> <p>2.5 Textile yarn samples are conditioned according to test specification.</p>

	<p>2.6 Prescribed test is carried out according to job specification.</p> <p>2.7 Test results are recorded according to standard operating procedure (SOP).</p>
3. Inspect grey fabric	<p>3.1 Grey fabric roll is obtained according to organisational procedures.</p> <p>3.2 Fabric inspection table status is checked according to organisational standards.</p> <p>3.3 Grey fabric is loaded on inspection table according to SOP.</p> <p>3.4 Grey fabric is inspected for yarn and weaving defects according to SOP.</p> <p>3.5 Detected yarn and weaving defects are marked according to SOP</p> <p>3.6 Detected yarn and weaving defects are mended where possible according to SOP.</p> <p>3.7 Mended grey fabric is graded and recorded according to SOP.</p>
4. Test processed fabric	<p>4.1 Test environment is conditioned according to specified standard.</p> <p>4.2 Processed fabric test is identified according to job specification.</p> <p>4.3 Processed fabric testing equipment are selected and set up according test specification.</p> <p>4.4 Processed fabric samples are obtained according to test specification.</p> <p>4.5 Processed fabric samples are conditioned according to test specification.</p> <p>4.6 Prescribed test is carried out according to job specification.</p> <p>4.7 Test results are recorded according to standard operating procedure (SOP).</p>
5. Inspect finished fabric	<p>5.1 Finished fabric roll is obtained according to organisational procedures.</p> <p>5.2 Fabric inspection table status is checked according to organisational standards.</p>

	<p>5.3 Finished fabric is loaded on inspection table according to SOP.</p> <p>5.4 Finished fabric is inspected for <i>process defects</i> according to SOP.</p> <p>5.5 Detected process defects are marked according to SOP</p> <p>5.6 Detected process defects are mended where possible according to SOP.</p> <p>5.7 Finished fabric is graded and recorded according to SOP.</p> <p>5.8 Finished fabric is packed according to organisational standard.</p>
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RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

Variable	Range
1. Fibre test may include but not limited to:	<ul style="list-style-type: none"> • Staple length • Fibre fineness • Fibre maturity • Fibre strength • Trash content
2. Fibre testing equipment may include but not limited to:	<ul style="list-style-type: none"> • Fibro graphy • Fibre baer sorter • Trash analyzer
3. Fibre samples may include but not limited to:	<ul style="list-style-type: none"> • Tuft • Fleece • Lap • Sliver • Roving
4. Textile yarn test may include but not limited to:	<ul style="list-style-type: none"> • Tensile strength • Twist • Neps • Evenness • Count
5. Yarn testing equipment may	<ul style="list-style-type: none"> • Beam balance • Strength tester • Evenness tester

Variable	Range
include but not limited to:	<ul style="list-style-type: none"> • Wrap reel
6. Textile yarn samples may include but not limited to:	<ul style="list-style-type: none"> • Cone • Bobbin • Cheese
7. Yarn and weaving defects may include but not limited to:	<ul style="list-style-type: none"> • Foreign materials • Missing ends • Missing peaks • Thick and thin places • Stains • Starting marks • Reed marks
8. Prescribed test may include but not limited to:	<ul style="list-style-type: none"> • Color fastness • Abrasive resistance • Absorbency
9. Process defects may include but not limited to:	<ul style="list-style-type: none"> • Colour variation • Holes • Stains • Foreign materials

REQUIRED SKILLS

The individual needs to demonstrate skills in:

- Inspection of textile products
- Testing of textile Material
- Control of textile testing equipment
- Correcting process defects
- Sample preparation
- Grading
- Interpreting and following information on written job instructions, manufacturer specifications, standard operating procedures, charts, lists, reports and other applicable reference documents
- Checking and clarifying information
- Planning and sequencing tasks
- Identifying non-compliances
- Communication skills– oral/written
- Data collection

REQUIRED KNOWLEDGE

The individual needs to demonstrate knowledge of:

- Properties of textile raw materials
- Textile testing equipment
- Identification of textile material defects and faults
- Fault rectification techniques
- Applicable textile standards
- Safety practices and procedures
- Sampling techniques
- Documentation
- Procedure for safe disposal of waste materials
- Principle of testing
- Textile processes

EVIDENCE GUIDE

This provides advice on assessment and must be in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical Aspects of Competency.	<p>Assessment requires evidence that the learner</p> <ul style="list-style-type: none"> 1.1 Identified technical specification of textile materials 1.2 Tested textile material 1.3 Identified properties of textiles materials 1.4 Inspected quality of textile materials 1.5 Graded textile materials according to specifications 1.6 Operated textile testing equipment 1.7 Observed safety while performing testing operations
2. Resource Implications.	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Textile testing equipment 2.2 Textile materials 2.3 Textile reference materials/ standards 2.4 Stationery 2.5 Computer 2.6 Software 2.7 Tools and equipment 2.8 Reagents 2.9 Textile laboratory
3. Methods of Assessment.	<p><i>Competency may be assessed through:</i></p> <ul style="list-style-type: none"> 3.1 Practical 3.2 Observation 3.3 Questionnaire 3.4 Written examinations 3.5 Oral presentation

4. Context of Assessment.	Competency may be assessed: 4.1 On-the-job 4.2 Off-the –job 4.3 During Industrial attachment
5. Guidance information for assessment.	This unit may be assessed on an integrated basis with others within this occupational sector.

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