

Title	Demonstrate knowledge of industrial textile fabrication materials for performance requirements		
Level	4	Credits	8

Purpose	People credited with this unit standard are able to describe: fabric characteristics and construction; fabric finishes for industrial textile fabrication; fabric specifications; material aesthetic properties; and demonstrate knowledge of standard fabric tests for industrial textile fabrication.
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Classification	Industrial Textile Fabrication > Industrial Textile Fabrication Core Skills
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's information, company requirements, industry guidelines and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 2 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the Health and Safety at Work Act 2015; and any subsequent amendments and replacements.
- 3 Definitions

Company requirements refers to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.

Industry guidelines refers to those practices and procedures commonly used as standard procedures to produce items of acceptable merchantable quality in the industrial textile fabrication industry such as related textbook descriptors.

Manufacturer's information refers to technical information for a machine or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.

Suitable tools and equipment refer to industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices.

Outcomes and performance criteria

Outcome 1

Describe fabric characteristics and construction for industrial textile fabrication.

Performance criteria

1.1 Fibre types for fabrication are described.

Range natural, spun viscose, synthetics – high density polyethylene, polyethylene, polyvinyl chloride, polyester, acrylic.

1.2 Yarn and thread construction are described.

Range single and multi-ply, continuous monofilament, continuous multi-filament, spun staple, core spun.

1.3 Fabric construction methods and features are described.

Range plastic extruded sheet, knitted, spun bonded, felt bonded, woven, warp, weft, bias, selvedge, stentering.

1.4 Weaving types are described.

Range plains, oxford, twill, Dehrsuti, jacquard, ripstop, panama.

Outcome 2

Describe fabric finishes for industrial textile fabrication.

Performance criteria

2.1 Fabric treatments are described.

Range coatings, waterproofing, ultraviolet (UV) stabilisers, mildew inhibitors.

2.2 Fabric colouring methods and colourants are described.

Range methods – mass dyed, yarn dyed, piece dyed, printed; colourants – dye stuffs, pigments.

2.3 Polyvinylchloride (PVC) coating methods are described.

Range laminate, hot melt, spread coat.

Outcome 3

Describe fabric specifications for industrial textile fabrication.

Performance criteria

- 3.1 Terminology used to specify mass per area of fabric is described.
- Range loom state, finished state, ounces per square yard, grams per square metre.
- 3.2 Terminology used to specify the measurement of yarn is described.
- Range denier, tex, decitex, cotton count.
- 3.3 Terminology used to specify the thread count of a fabric is described.
- Range pickscm, picksinch, endscm, endsinch, threads.

Outcome 4

Demonstrate knowledge of standard fabric tests for industrial textile fabrication.

Performance criteria

- 4.1 Standard fabric tests and the factors they measure are described.
- Range tear strength, tensile strength, waterproofing, colour fastness, abrasion, flex, stretch, shrinkage, cold crack, UV resistance.
- 4.2 Fabric test results and their application to workplace products are described.
- 4.3 Specifications from two fabrics of similar end use capabilities are compared and the effect of the specifications differences on fabric performance is described.

Outcome 5

Describe material aesthetic properties for industrial textile fabrication.

Performance criteria

- 5.1 Fabric colours and their associated properties are described.
- Range weathering, pollution, contamination, UV, water.
- 5.2 Textures exhibited by workplace fabrics are described.
- Range light effects – shadows, translucency, opacity, gloss, matt;
physical effects – rough, smooth, hard, soft, flexible, rigid.

Replacement information	<p>This unit standard was replaced by skill standard 40083.</p> <p>This unit standard and unit standard 23509 replaced unit standard 1323.</p>
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This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 March 2007	31 December 2023
Rollover	2	27 January 2015	31 December 2023
Review	3	25 November 2021	31 December 2026
Review	4	29 August 2024	31 December 2026

Consent and Moderation Requirements (CMR) reference	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.