

Title	Prepare a dye recipe from a given shade sample		
Level	4	Credits	12

Purpose	People credited with this unit standard are able to: select dyestuffs, chemicals, and application method; produce a dye recipe; assess dyed shade and make recipe modifications; and document a dye recipe.
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Classification	Textiles Manufacture > Textile Dyeing and Finishing
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Available grade	Achieved
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Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to the: Health and Safety at Work Act 2015.
- 2 Definitions

Dyeing refers to all pre-treatments, dye cycle, and post-treatments carried out in the dyeing machine.

Product specifications refer to the document which accompanies each manufacturing order. This specifies all of the parameters for production of the yarn batch. This may include the fibre specification, the shade, dye bath parameters, machinery to be used and finishing procedures.

Workplace procedures refer to procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, and procedures to comply with legislative and local body requirements.
- 3 Assessment information

All activities and evidence must be in accordance with workplace procedures.

Outcomes and performance criteria

Outcome 1

Select dyestuffs, chemicals, and application method.

Performance criteria

- 1.1 Substrate is identified.
- 1.2 Dyestuff and chemical types are selected to achieve sample shade.

- 1.3 Dyestuff and chemical types are selected to meet product specifications.
- Range fastness, metamerism, resistance to shade change in following processes, cost.
- 1.4 Dyeing method is selected that is appropriate for substrate, dye and chemical types, and required shade.

Outcome 2

Produce a dye recipe.

Performance criteria

- 2.1 Dyestuff and chemical proportions are assessed to produce the required shade.
- 2.2 Dyeing profile is set that produces conditions required for application of dyes and chemicals.
- Range temperature, time, rate of rise, rate of fall, dye and chemical addition sequence, liquor conditions.
- 2.3 Sample is prepared and taken to meet shade assessment requirements.
- Range size, sampling location, sample pre-treatments prior to shade assessment.

Outcome 3

Assess dyed shade and make recipe modifications.

Performance criteria

- 3.1 Dyed sample is assessed for shade match against the required shade master.
- 3.2 Dyestuff and chemicals proportion is adjusted to produce the required shade.

Outcome 4

Document a dye recipe.

Performance criteria

- 4.1 Recipe is recorded.
- Range dye and chemical proportions, dyeing profile, adjustments and modifications.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 October 1995	31 December 2019
Revision	2	8 August 1997	31 December 2019
Revision	3	18 July 2000	31 December 2019
Revision	4	10 October 2001	31 December 2019
Revision	5	15 January 2004	31 December 2019
Rollover	6	25 July 2007	31 December 2019
Review	7	17 April 2009	31 December 2019
Review	8	19 May 2016	31 December 2025
Review	9	24 March 2022	N/A

Consent and Moderation Requirements (CMR) reference	0030
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.