

Title	Demonstrate knowledge of the components, properties, and possible defects of specialised surface coatings		
Level	3	Credits	5

Purpose	<p>This specialist unit standard is for people working in the coatings area of the painting and decorating sector.</p> <p>People credited with this unit standard are able to demonstrate knowledge of: the components of specialised surface coatings; the process by which specialised surface coatings dry and harden; the properties of specialised surface coatings; the failures in specialised surface coatings that can be attributed to component failure and the remedies for them; and the failures in specialised surface coatings that can be attributed to substrate and the remedies for them.</p>
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Classification	Construction Trades > Painting and Decorating
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Available grade	Achieved
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Guidance Information

- 1 Legislation and references relevant to this unit standard include – Health and Safety in Employment Act 1992; Resource Management Act 1991; Hazardous Substances and New Organisms Act 1996; available at <http://legislation.govt.nz>; AS/NZS 2311:2009 *Guide to the painting of buildings*, available at <http://www.standards.co.nz/>.
- 2 Definition
Specialised surface coatings are primarily highly decorative specialised finishes.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the components of specialised surface coatings.

Range includes – decorative, acoustic, floor coatings.

Performance criteria

- 1.1 Specialised surface coatings are described in terms of their components.
- Range includes – pigments, extenders, fillers, binders, thinners, additives, catalysts.
- 1.2 Components are described in terms of their functions.
- 1.3 Components are described in terms of their performance characteristics.
- Range includes – durability, application, film attribute.
- 1.4 Hazardous materials are identified and described in terms of the hazards.
- Range hazardous materials include – pigments, extenders, fillers, binders, thinners, additives, catalysts.

Outcome 2

Demonstrate knowledge of the process by which specialised surface coatings dry and harden.

Performance criteria

- 2.1 The methods by which specialised surface coatings dry and harden are described.
- Range includes – oxidation, evaporation, polymerisation.
- 2.2 Atmospheric influences that affect drying conditions are identified and described in terms of their effect.
- Range includes – temperature, humidity, pollutants.
- 2.3 Substrate influences which affect drying conditions are identified and described in terms of their effect.
- Range includes – temperature, composition, reactivity.
- 2.4 Convertible and non-convertible commercial surface coatings are described in terms of their characteristics.

Outcome 3

Demonstrate knowledge of the properties of specialised surface coatings.

Performance criteria

3.1 Specialised surface coatings are described in terms of their properties.

Range includes – opacity, consistency, flow, adhesion, elasticity, drying time, gloss, spreading rate, durability, container stability.

3.2 Container stability defects are described in terms of their effects.

Range includes – skinning, fattening, livering, settling, flocculation, gelling.

Outcome 4

Demonstrate knowledge of the failures in specialised surface coatings that can be attributed to component failure and the remedies for them.

Range includes – bleeding, cracking, crazing, chalking, discolouration, loss of gloss, retarded drying, floating, yellowing, mould, mildew, blistering.

Performance criteria

4.1 Failures in specialised surface coatings that can be attributed to component failure are identified and described.

4.2 Remedies for failures in specialised surface coatings that can be attributed to component failure are described.

Outcome 5

Demonstrate knowledge of the failures in specialised surface coatings that can be attributed to substrate and the remedies for them.

Range includes – bleeding, saponification, efflorescence, cissing, sinkage, flashing, flaking, rust spotting, bleaching, mould, mildew adhesion, blistering.

Performance criteria

5.1 Failures in specialised surface coatings that can be attributed to the substrate are identified and described.

5.2 Remedies for failures in specialised surface coatings that can be attributed to the substrate are described.

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	1 February 1993	31 December 2012
Review	2	4 July 1995	31 December 2012
Review	3	30 November 1996	31 December 2012
Revision	4	8 April 1999	31 December 2012
Review	5	27 January 2003	31 December 2016
Review	6	18 August 2011	31 December 2016
Review	7	19 February 2015	31 December 2026
Review	8	24 April 2025	31 December 2028

Consent and Moderation Requirements (CMR) reference	0048
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.