

<b>Title</b>	<b>Demonstrate knowledge of paint and its application</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	<p>This general unit standard is for people working in the painting and decorating sector.</p> <p>People credited with this unit standard are able to demonstrate knowledge of: the types of paint; the components of paint; the process by which paint dries and hardens; the properties of paint; the effect of different substrates on paint; and defects in paint coatings.</p>
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<b>Classification</b>	Construction Trades > Painting and Decorating
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<b>Available grade</b>	Achieved
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### Guidance Information

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/>.

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### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of the types of paint.

#### Performance criteria

1.1 Paint is described in terms of its type.

Range includes – waterbased primers and undercoats, waterbased top coats, solvent based primers and undercoats, solvent based topcoats, protective coatings.

1.2 Paint types are described in terms of their characteristics.

1.3 Gloss levels of paint are described in terms of their characteristics.

Range includes – aesthetics, durability, gloss uniformity, full gloss, gloss, semi-gloss, low sheen, flat.

**Outcome 2**

Demonstrate knowledge of the components of paint.

**Performance criteria**

- 2.1 Paint is described in terms of its components.
- Range includes – pigments, extenders, fillers, binders, thinners, driers, additives.
- 2.2 The components are described in terms of their functions.
- 2.3 Characteristics of the components are described in terms of their performance.
- Range includes – exposure, durability, application.
- 2.4 Components used to colour paint are identified and described in terms of the process used.

**Outcome 3**

Demonstrate knowledge of the process by which paint dries and hardens.

**Performance criteria**

- 3.1 The methods by which paint dries and hardens are described.
- Range includes – oxidation, polymerisation, evaporation.
- 3.2 Atmospheric influences that affect drying conditions are identified and described in terms of their effect.
- Range includes – temperature, humidity, moisture, pollutants.
- 3.3 Substrate influences which affect drying conditions are identified and described in terms of their effect.
- Range includes – temperature, composition, reactivity.

**Outcome 4**

Demonstrate knowledge of the properties of paint.

**Performance criteria**

- 4.1 Paint is described in terms of its properties.
- Range includes – opacity, consistency, flow, adhesive, elasticity, drying time, gloss, spreading rate, durability, container stability.

4.2 Container stability defects are described in terms of their characteristics.

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

**Outcome 5**

Demonstrate knowledge of the effect of different substrates on paint.

**Performance criteria**

5.1 Types of timber and their reaction to paint are described in terms of application.

Range includes – New Zealand native timbers, exotic timbers.

5.2 Light reflection properties of dark and light coloured paint applied to exterior substrates are described.

Range substrates include – timber, proprietary plaster cladding systems.

**Outcome 6**

Demonstrate knowledge of defects in paint coatings.

**Performance criteria**

6.1 Types of defects are described in terms of characteristics.

Range includes – after-tack, bleaching, bleeding, blistering, bloom, blushing, bubbling, chalking, cissing, cobwebbing, cracking, crocodiling, efflorescence, flaking, holidays, intumescence, lifting, mud cracking, orange peel, peeling, pinholing, sagging, streaking, webbing, wrinkling, yellowing, saponification.

<b>Replacement information</b>	This unit standard replaced unit standard 1067.
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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	18 August 2011	31 December 2016
Review	2	19 February 2015	31 December 2026
Review	3	24 April 2025	31 December 2028

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

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