

<b>Title</b>	<b>Evaluate and select materials and finishes for buildings</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to, for buildings: explain the characteristics and physical properties of materials and finishes used; evaluate performance and compatibility of materials and finishes used; and select materials and finishes to be used.
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<b>Classification</b>	Construction > Core Planning and Construction
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Definition  
*Sustainability* means the ability to complete building works using a minimum of the earth's resources, and having minimal negative effect on the environment.
- 2 For the purpose of this unit standard, materials and finishes are those commonly used in construction and include – plaster board, carpet, vinyl, timber and wood-based products, glass, concrete, metal, plastic, fibre cement, sealants, paint, adhesives, insulation materials.
- 3 Assessment of this unit standard can be by simulation and/or observation.
- 4 Range of buildings – new and existing.
- 5 Legislation and publications relevant to this unit standard include: Health and Safety in Employment Act 1992 and Health and Safety in Employment Regulations 1995; Resource Management Act 1991; Building Act 2004.

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### Outcomes and performance criteria

#### Outcome 1

Explain the characteristics and physical properties of materials and finishes used in buildings.

#### Performance criteria

- 1.1 Materials and finishes are identified and described in terms of their characteristics and physical properties.

- 1.2 The effects of incompatibility of materials and finishes on building design and construction are described.
- Range galvanic incompatibility of metals, differential co-efficient of linear expansion of materials, timbers.
- 1.3 Identification of materials and finishes establishes their potential hazards in buildings.
- Range chemical, physical, environmental.

## Outcome 2

Evaluate performance and compatibility of materials and finishes used in buildings.

### Performance criteria

- 2.1 Performance of materials and finishes is evaluated in terms of function and/or use.
- Range durability, climate, environmental factors, energy, safety, fire protection properties, standards approval, strength, sustainability rating.
- 2.2 Evaluation of materials and finishes establishes their compatibility.
- 2.3 Performance of finishes is evaluated in terms of the environment's effects on them.

## Outcome 3

Select materials and finishes to be used in buildings.

### Performance criteria

- 3.1 Criteria for selecting materials and finishes are identified to match the design considerations.
- 3.2 Required materials and finishes are determined from supplied analyses.
- Range physical properties, durability, fire resistance, stiffness, chemical resistance, strength, ductility, weight, colour effect, sustainability rating.
- 3.3 Design and construction measures are described that eliminate or minimise the potential hazards of materials and finishes for buildings.

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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	21 March 1997	31 December 2024
Revision	2	10 December 1997	31 December 2024
Revision	3	7 June 2000	31 December 2024
Review	4	20 March 2003	31 December 2024
Revision	5	19 July 2004	31 December 2024
Review	6	18 March 2011	31 December 2024
Review	7	25 August 2022	31 December 2024

<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>.