

Title	Demonstrate knowledge of thermal insulation and sound control for buildings		
Level	3	Credits	2

Purpose	<p>People credited with this standard can describe the principles and requirements for:</p> <ul style="list-style-type: none"> • thermal insulation in buildings; • sound control in buildings; and • demonstrate knowledge of health and safety for thermal insulation and sound control in buildings.
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Classification	Construction Trades > Carpentry
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Available grade	Achieved
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Guidance Information

1 Range

Evidence generated for assessment against this standard must reflect workplace and industry requirements specified in:

- documented worksite specifications, procedures, and practices;
- manufacturer recommendations, specifications, and technical data sheets;
- applicable material safety data sheets;
- NZS 3604:2011 *Timber Framed Buildings*;
- NZS 4218:2004 *Energy efficiency – Small building envelope*;
- NZS 4243.1:2007 *Energy efficiency – Large buildings – Building thermal envelope*;
- NZS 4246:2006 *Energy efficiency – Installing insulation in residential buildings*;
- documented worksite specifications, procedures, and practices;
- applicable manufacturer recommendations, specifications, and technical data sheets.

Evidence generated for assessment against this standard must reflect the requirements of:

- Building Act 2004
- Health and Safety at Work Act 2015
- Resource Management Act 1991
- Building Regulations 1992
- Building (Forms) Regulations 2004
- Health and Safety in Employment Regulations 1995.

2 References

NZS 3604:2011 *Timber Framed Buildings*. Available from Standards NZ

(<http://www.standards.co.nz>).

NZS 4218:2004 *Energy efficiency – Small building envelope* (SNZ). Available from Standards NZ (<http://www.standards.co.nz>).

NZS 4243.1:2007 *Energy efficiency – Large buildings – Building thermal envelope* (SNZ). Available from Standards NZ (<http://www.standards.co.nz>).

NZS 4246:2006 *Energy efficiency – Installing insulation in residential buildings* (SNZ). Available from Standards New Zealand (<http://www.standards.co.nz>).

Outcomes and performance criteria

Outcome 1

Describe the principles and requirements for thermal insulation in buildings.

Performance criteria

1.1 Describe the principles underpinning thermal insulation.

Range heat transference, conduction, radiation, convection, thermal mass.

1.2 Identify and describe thermal insulation requirements for buildings.

Range concrete floor, timber floor, walls, ceilings, roof, glazed areas.

Outcome 2

Describe the principles and requirements for sound control in buildings.

Performance criteria

2.1 Describe the principles underpinning sound control in buildings.

Range reflection, absorption, transmission.

2.2 Identify and describe sound control requirements for buildings.

Range concrete floor, timber floor, walls, ceilings, glazed areas; technical requirements, regulatory requirements.

Outcome 3

Demonstrate knowledge of health and safety for thermal insulation and sound control in buildings.

Range labour, identification of hazards and controls, plant;
 plant includes – any machinery, vehicle, vessel, aircraft, equipment (including personal protective equipment), appliance, container, implement, or tool; any component of any of those things; anything fitted or connected to any of those things;
 personal protective equipment includes – anything used or worn by a person (including clothing) to minimise risks to the person’s health and safety; air supplied respiratory equipment.

Performance criteria

3.1 Identify and describe health and safety requirements for installing thermal insulation and sound control in buildings.

Replacement information	This unit standard replaced unit standard 13021.
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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 January 2008	31 December 2023
Review	2	30 September 2021	N/A

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>.

Comments on this unit standard

Please contact the Building and Construction Industry Training Organisation at national.office@bcito.org.nz if you wish to suggest changes to the content of this unit standard.