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CN

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Ind

Out

Anc

Quick reference guide: Improved Window Performance Requirements For Other Buildings Greater Than 300m²

An overview of the recently updated H1 requirements, August 2022



window & glass
association nz

Please note: This document is intended as a convenient overview. Please refer to MBIE's official documentation for more detail.

About this Guide

- **This guide applies to ‘Buildings greater than 300m²’.** This includes buildings classified as:
 - ‘Communal residential’ e.g. a hotel or rest home
 - ‘Communal non-residential’ e.g. a church or school
 - ‘Commercial’ e.g. a bank, police station, restaurant or shop
 - ‘Industrial’ e.g. factories or warehouses
 - ‘Outbuildings’ e.g. a garage, greenhouse or shed
 - ‘Ancillary’
- The area (Greater than 300m²) is based on the **occupied space** of the building.
- More information on how buildings are classified is available in Clause A1 of the Building Code [here](#).

CR	Communal residential
CN	Communal non-residential
Com	Commercial
Ind	Industrial
Out	Outbuildings
Anc	Ancillary

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Key background

- The H1 Clause of the Building Code regulates the energy efficiency of our built environment – covering wall, floor and roof insulation as well as the thermal performance of windows and doors.
- Proposed changes to the Clause were consulted on last year and published in November 2021. There are a range of requirements, and transition and implementation periods, depending on building type, construction element, and Climate Zone.
- **For windows and doors in ‘Buildings greater than 300m²’, all improved requirements come into effect on 3 November 2022.**
- More information on H1 is available [here](#). Please note: Amended Fifth Editions of H2/AS2 and H2/VM2 (the compliance pathways that will reflect the new and requirements, as pictured) have now been published by MBIE in August 2022.
- **The new standards apply based on the date of the building consent application, however these higher standards can be used from now.**



Overview of construction R-values

- This table from H1/AS2 shows the R-values required for windows and doors (glazed), and for skylights, effective from 3 November 2022, by Climate Zone.

TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values (m ² ·K/W) ⁽¹⁾					
	Climate zone 1	Climate zone 2	Climate zone 3	Climate zone 4	Climate zone 5	Climate zone 6
<i>Roof</i>	R3.5	R4.0	R5.0	R5.4	R6.0	R7.0
Wall	R2.2	R2.4	R2.7	R3.0	R3.0	R3.2
Floor	R2.2	R2.2	R2.2	R2.4	R2.5	R2.6
Windows and doors	R0.33	R0.33	R0.37	R0.37	R0.40	R0.42
<i>Skylights</i>	R0.42	R0.42	R0.46	R0.46	R0.49	R0.51

Zones 1 & 2, from 3 Nov 2022

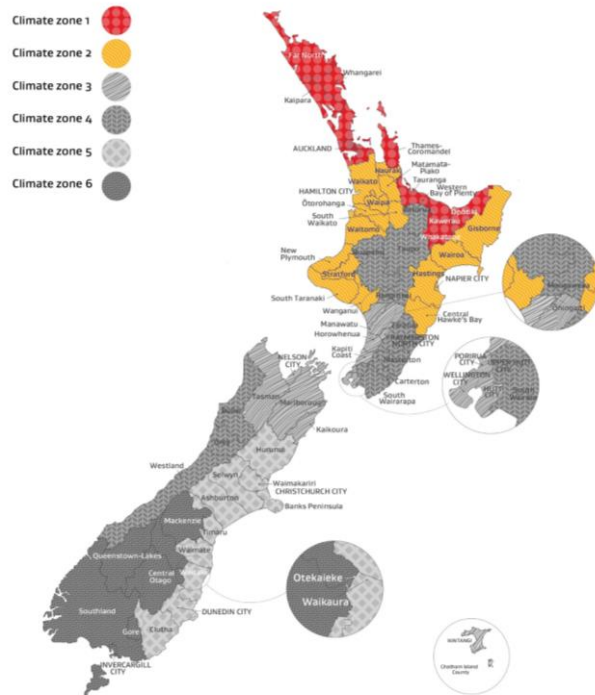


TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values (m ² ·K/W) ⁽¹⁾	
	Climate zone 1	Climate zone 2
Windows and doors	R0.33	R0.33
Skylights	R0.42	R0.42

- This is Table 2.1.2.2B from **H1/AS2**.
- Performance values for the windows and doors element of these buildings **must be calculated**.

Zones 3 & 4, from 3 Nov 2022

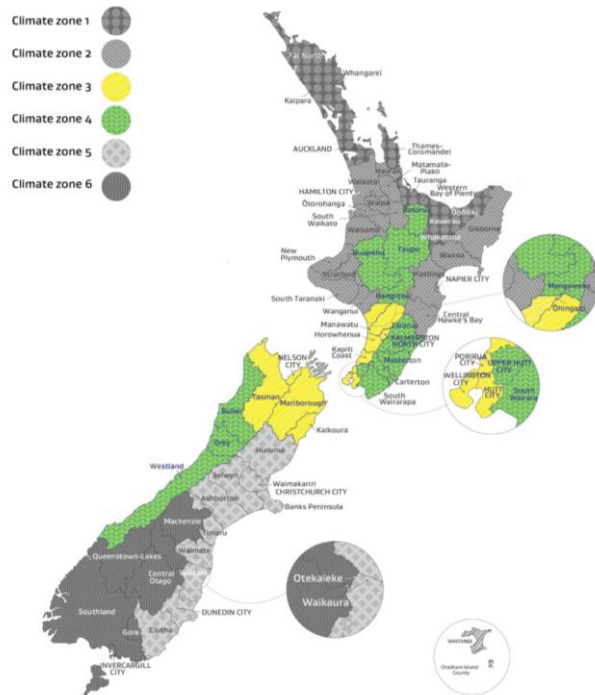


TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values ($\text{m}^2 \cdot \text{K}/\text{W}$) ⁽¹⁾	
	Climate zone 3	Climate zone 4
Windows and doors	R0.37	R0.37
Skylights	R0.46	R0.46

- This is Table 2.1.2.2B from **H1/AS2**.
- Performance values for the windows and doors element of these buildings **must be calculated**.

Zone 5, from 3 Nov 2022

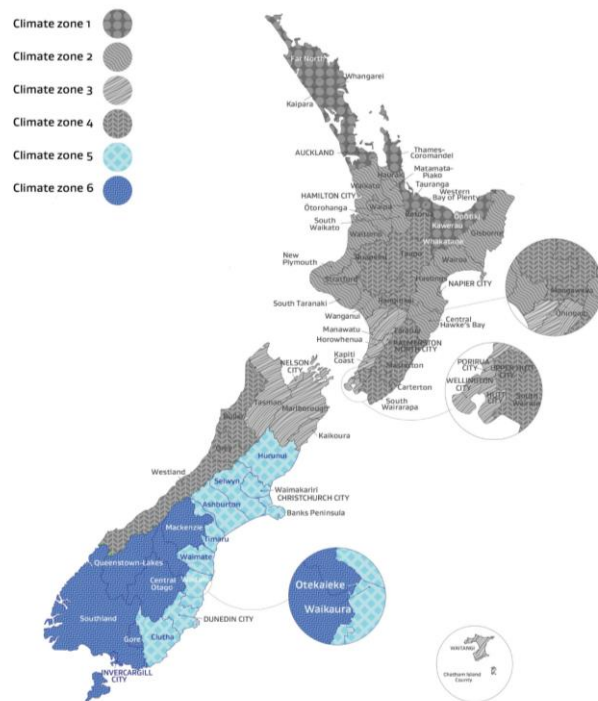


TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values ($\text{m}^2 \cdot \text{K}/\text{W}$) ⁽¹⁾					
	Climate zone 1	Climate zone 2	Climate zone 3	Climate zone 4	Climate zone 5	Climate zone 6
Windows and doors	R0.25	R0.25	R0.25	R0.25	R0.40	R0.50
Skylights	R0.25	R0.25	R0.25	R0.25	R0.49	R0.50

- This is Table 2.1.2.2B from **H1/AS2**
- Performance values for the windows and doors element of these buildings **must be calculated**.

Zone 6, from 3 Nov 2022

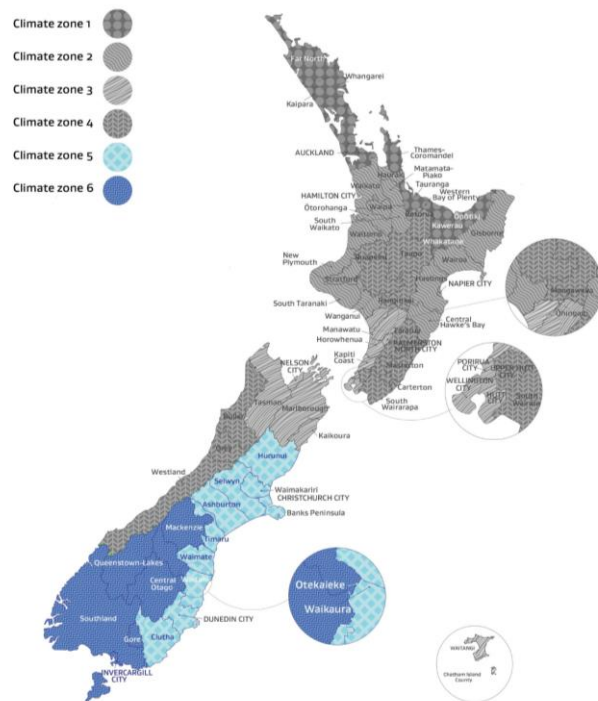


TABLE 2.1.2.2B: Minimum construction R-values for building elements that do not contain embedded heating systems

Paragraphs 2.1.2.2 b), 2.1.3.11

Building element	Construction R-values ($\text{m}^2 \cdot \text{K}/\text{W}$) ⁽¹⁾						Climate zone 6
	R2.1	R2.2	R2.3	R2.4	R2.5	R2.6	
Windows and doors							R0.42
Skylights							R0.51

- This is Table 2.1.2.2B from **H1/AS2**,
- Performance values for the windows and doors element of these buildings **must be calculated**.

Further resources

- If you'd like further information or support from the Window & Glass Association, please [contact us](#).
- Or find more resources on the [Association's website](#). The *Industry Resources and Standards page* will be regularly updated over the coming months.
- All official documentation relating to H1 can be found at MBIE's website [here](#).

Glossary of terms

- **Climate Zone** – One of six climate zones in New Zealand (as identified in the requirements) that dictate when and what R-values are required based on a building's physical address.
- **H1** – The Clause of the Building Code covering energy efficiency of buildings, specifically insulation requirements.
- **H1/AS2 and H1/VM2** – These documents cover the compliance pathways via either Acceptable Solutions or a Verification Method.