

Declaration of Thermal Performance for Windows & Doors

Date of Issue

31/05/2024

Manufacturer / Supplier (email and contact details below)

Hagley Windows and Doors

926 Halswell Junction Road, Islington, CHCH 8042

Project / Site Details - including Address.

Lot 44, 5 Nirmal Way

Lemonwood Estate, Rolleston

Consent No.

BCN/240494

Climate Zone

5

I / We declare that the following, ☒ 1) Glazed windows & doors, **or**
☐ 2) Opaque doors, **or**
☐ 3) Skylights.

supplied by us to this Project / Site, achieve a **Construction R-value** as stated below,**Construction R-value = R** **0.50** **m2.K/W***(Note – The Construction R-value shall be no less than the value specified within the Consent listed above.)*

This R-value has been determined using one of the following methods,

- ☒ i) Selected from Table E.1.1.1, **or**
☐ ii) Derived using a WEERS calculator, **or**
☐ iii) Calculated in accordance with H1 / (Confirm H1/AS2, VM1, or VM2)

Name David Brill on 0274 800 802 david.brill@hagley.co.nz

TABLE E.1.1.1: Construction R-values (R_{Window}) of selected generic vertical windows and doors

Paragraph E.1.1.1 a)

Type of glazing	$U_g^{(1)}$	Spacer type ⁽²⁾	Example IGU ⁽³⁾ , ⁽⁴⁾ (informative)	R_{Window} ($\text{m}^2 \cdot \text{K/W}$) for different frames			
				Aluminium frame	Thermally broken aluminium frame	uPVC frame	Timber frame
Double pane	2.63	Aluminium	Glass: Clear/Clear Gas: Air	R0.26	R0.32	R0.40	R0.44
	1.90	Aluminium	Glass: Low E_x /Clear Gas: Argon	R0.30	R0.39	R0.50	R0.56
	1.60	Thermally improved	Glass: Low E_x /Clear Gas: Argon	R0.33	R0.42	R0.56	R0.63
	1.30	Thermally improved	Glass: Low E_y /Clear Gas: Argon	R0.35	R0.46	R0.63	R0.71
	1.10	Thermally improved	Glass: Low E_z /Clear Gas: Argon	R0.37	R0.50	R0.69	R0.77
	0.90	Thermally improved	Glass: Low E_z /Clear Gas: Krypton	R0.40	R0.54	R0.76	R0.85
Triple pane	1.89	Thermally improved	Glass: Clear/Clear/Clear Gas: Air		R0.38	R0.50	R0.56
	1.20	Thermally improved	Glass: Low E_x /Clear/Clear Gas: Argon		R0.48	R0.66	R0.74
	1.00	Thermally improved	Glass: Low E_y /Clear/Clear Gas: Argon		R0.52	R0.73	R0.81
	0.70	Thermally improved	Glass: Low E_y /Low E_z /Clear Gas: Argon		R0.59	R0.86	R0.95
	0.60	Thermally improved	Glass: Low E_z /Low E_z /Clear Gas: Argon		R0.62	R0.91	R1.01

Notes:

(1) Thermal transmittance of the glazing determined using BS EN 673. Where the U_g -value of the proposed glazing is different from the values included in the table, R_{Window} shall be determined based on the nearest U_g -value in the table that is greater than the U_g -value of the proposed glazing.

(2) 'Thermally improved' refers to a spacer that meets the definition of thermally improved spacer in ISO 10077-1 Annex G.

(3) The examples provided are informative descriptions only of the *insulated glazing unit (IGU)* types that might be used to deliver the nominated U_g -values. When using this table, R_{Window} shall be determined based on U_g , spacer type and frame type.

(4) The properties of each of the glass panes within the *IGU* are provided and separated by '/'. 'Clear' refers to clear float glass. 'Low E_x ', 'Low E_y ', 'Low E_z ' and 'Low E_z ' refer to glass with low emissivity coatings at different performance levels.

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