Product Technical Statement

Manufacturer Optimal Windows and Doors

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Product: **Optimal Wooden Windows and Doors**

Description: Optimal Windows Ltd are IV68 timber framed windows and doors manufactured in NZ under the specifications set out by Die Marke Tishler Schreiner (German Master Joiner Association) using their specified design, profiles and related components. This system offers various configurations for windows and doors to suit the particular requirements of building occupants.

Optimal windows and doors are available with single or double glazing, and with safety glass to comply with the requirements of the Building Code.

An overview of various configurations can be found at www.optimalwindows.co.nz/downloads/html

Scope of Use: This Product Technical Statement covers the following range of profile IV68 windows and doors, manufactured in Western Red Cedar or Rosewood, for use in all wind zones up to including Extra High (as defined in NZS3604):

- Inward opening single and double sash turn/tilt, turn only and tilt only windows and doors
- Outward opening single and double sash windows and doors
- Tilt and Slide single and double sash windows and doors with passive control
- Lift and Slide single and two sash stacking sliding doors and windows
- Fixed glazing

Technical Literature: Installation guidelines (download from www.optimalwindows.co.nz/downloads.html)
CE Plus Certificate (download from www.optimalwindows.co.nz/downloads.html)
FacadeLab test report 13/04 (download from www.optimalwindows.co.nz/downloads.html)
PfB Test Certificates 13/01-A013-Z1.1, Z3.1, Z9.1, Z10.1, and Z11.1 (available on request)

When used as described above, Optimal Wooden Windows and Doors meet the following relevant performance requirements of the New Zealand Building Code

Relevant Code Clause:	Basis of Compliance:	Related documents:	Comments:
Structure B1.3.1	Alternative solution compared with acceptable solution	E2/AS1, NZS4122, EN12210	Optimal wooden windows and doors have been tested and certified as meeting the ultimate strength requirements of EN12210, for wind pressures in excess of what is required for NZS4211 for the wind zones stated in the Scope and Limitations sections of this document.
Structure B1.3.2	Alternative solution compared with acceptable solution	E2/AS1, NZS4122, EN12210	Optimal wooden windows and doors have been tested and certified as meeting the serviceability deflection requirements of EN12210, for wind pressures in excess of what is required for NZS4211 for the wind zones stated in the Scope and Limitations sections of this document.

Structure	B1.3.3h	Alternative solution compared with acceptable solution	E2/AS1, NZS4122, EN12210	The structural performance of Optimal wooden windows and doors has been been tested and certified to EN12210, for wind pressures in excess of what is required for NZS4211 for the wind zones stated in the Scope and Limitations sections of this document.
Structure	B1.3.4	Alternative solution compared with acceptable solution	E2/AS1, NZS4122, EN12210	The structural performance of Optimal wooden windows and doors has been been tested and certified to EN12210, for wind pressures in excess of what is required for NZS4211for the wind zones stated in the Scope and Limitations sections of this document.
Durability	B2.3.1b	Alternative solution		Optimal wooden windows and doors are available in a variety of timber species. Western Red Cedar and Rosewood are widely used in joinery timbers in New Zealand and have an established track record of durability.
Durability	B2.3.2b	Alternative solution compared with acceptable solution		Optimal wooden windows and doors are readily replaced should that be required.
External moisture	E2.3.2	Alternative solution compared with acceptable solution	E2/AS1; NZS4211, EN12208	The weathertightness of Optimal wooden windows and doors has been tested and certified have been certified to EN12208. The performance requirements of EN12208 exceed the equivalent requirements of NZS4211 for the wind zones stated in the Scope and Limitations sections of this document.
Hazardous building materials	F2.3.1	Alternative solution		No harmful gas, liquid, radiation or solid particles are emitted by Optimal wooden windows and doors.
Hazardous building materials	F2.3.3	Acceptable Solution	F2/AS1; NZS4223:Part3	When intended to be installed in a location likely to be subject to human impact Optimal wooden wiindows and dooors are supplied with safety glazing as required by NZS4223:Part3.
Energy efficiency	H1.3.1	Alternative solution compared with acceptable solution	NZS4211; EN12207	Optimal wooden windows and doors may be fabricated with single or double glazing as appropriate to satisfy the energy efficiency performance required. Optimal wooden windows have been tested and exceed the minimum air infiltration requirements for air conditioned spaces.
Energy efficiency	H1.3.2E (Contributes to)	Acceptable Solution		Optimal wooden windows may be fabricated with single or double glazing as appropriate to satisfy the energy efficiency performance required.