

Maglok Dragonboard MINOR VARIATION FORM – PRODUCT SUBSTITUTION



Version 1.0. February 2022

PURPOSE

This form provides the necessary information to enable the substitution of Maglok™ DragonBoard® for commonly consented flooring materials as a minor variation.

PRODUCT INFORMATION

Address

Building Consent number

Plan sheets 1 where product is specified

Name of product consented

Type of material

(Plywood/particle board/fibre cement/compressed fibre cement)

Means of compliance

Plywood AS/NZS 2269	Particleboard AS/NZS 1860	Fibre cement board	Compressed fibre cement board
Acceptable solution (B1 & B2)	Acceptable solution (B1 & B2)	Acceptable solution (B1 & B2)	Acceptable solution (B1 & B2)

BASIS OF COMPARISON

Comparable performance Key metrics met or exceeded (refer over page)

DOCUMENTS SUPPLIED WITH THIS FORM (CHECK WHICH APPLIES)

- Maglok DragonBoard pass Maglok DragonBoard Install and Maintain
- Maglok DragonBoard Product Performance Evaluation

1 Plan sheets referenced must be the relevant stamped documents

EVALUATION

Commonly consented flooring materials are plywood, particleboard, fibre cement board and compressed fibre cement board. The following data shows the performance of Maglok compared to these materials.

Two methods to show comparable performance

- a. AS/NZS 1860
- b. CSR Hebel® AAC panel component of the PowerFloor system².

AS/NZS 1860 characteristics	AS/NZS 1860 metric	Maglok™ board metrics	Comment
Bending strength/modulus of rupture	≥ 17 MPa, Table 2 of AS/NZS 1860. Test method is AS/NZS 4266.1.	7.205 x 10 ³ MPa. Tested to ASTM D6109.	Maglok™ exceeds AS/NZS 1860 metric
Modulus of elasticity	≥ 2650 MPa, Table 2 of AS/NZS 1860. Test method is AS/NZS 4266.1.	7.51 x 10 ³ MPa. Tested to ASTM D6109.	Maglok™ exceeds AS/NZS 1860 metric
Thickness swell	≥ 14 % swell after 24 hours. Test method is AS/NZS 4266.1.	≥ 20 % increase in mass after 7 days at relative humidity of 85 %. 60 % increase in mass after 7 weeks at relative humidity of 85 % to 95 % (Nielsen et al., 2019).	Maglok™ and AS/NZS 1860 metrics are comparable given different timeframes
Thickness stability	≥ 25 %. Test method is AS/NZS 4266.1.		
Surface water absorption	≥ 210 g/m ² . Test method is AS/NZS 4266.1.		Limitation of use requires covering of Maglok board where subject to watersplash

AAC Characteristic	AAC metric	Maglok™ board metrics	
Compressive strength	2.8 MPa for 75 mm panel. 4 MPa for >150 mm panel.	27 MPa. Tested to ASTM C684.	Maglok™ and AAC metrics are comparable
Modulus of rupture	0.6 MPa for 75 mm and >150 mm panel.	7.205 x 10 ³ MPa. Tested to ASTM D6109.	Maglok™ exceeds AAC metric
Modulus of elasticity	0.595 x 10 ³ MPa for 75 mm panel. 1.875 x 10 ³ MPa for >150 mm panel.	7.51 x 10 ³ MPa. Tested to ASTM D6109.	Maglok™ exceeds AAC metric

For additional information refer attached documentation.

² The CSR Hebel® PowerFloor System is certified under section 269 of the Building Act with a CodeMark certificate, which demonstrates the product complies with the NZ Building Code.