



CERTIFICATE OF CONFORMITY

This is to certify that

DragonBoard®



Complies with the New Zealand Building Code:

1. B1.3.1, B1.3.2 & B1.3.3 (a),(b),(f),& (H) - Structure (refer A3 below)
2. B2.3.1 (b) & B2.3.2 (a) – Durability
3. C3.4(a) - Fire
4. F2.3.1 - Hazardous Building Materials

Product Description

DragonBoard® is a non-combustible flat magnesium oxide cold ceramic sheeting.

Product Purpose or Use

DragonBoard® can be used as an interior & exterior flooring.

Subject to the following Conditions & Limitations:

- a. The DragonBoard® as described in this Certificate of Conformity is limited to use in Type A-Domestic and Residential Activities as defined in Table 3.1 of AS/NZS 1170:2004.
- b. DragonBoard® must only be installed using Class 3 type galvanised fixings.
- c. When exposed to High moisture conditions (including high humidity) or water, DragonBoard® must be sealed or painted to preclude water absorption or staining.
- d. The Certificate Holder must maintain compliance with the conditions set out in Section 15 of the Building (Product Certification) Regulations 2008.
- e. Nothing in this document should be construed as a warranty or guarantee by CMI, and the only applicable warranties will be those provided by the Certificate Holder.

Certificate Holder

Taishan DragonBoard® Technologies Limited
21 Dragonhill Industrial District,
Duanfen Taishan City,
Guangdong, PC529245

Certification Body

CertMark International Pty Ltd
ABN: 80 111 217 568
JAS-ANZ Accreditation No. Z4450210AK
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John Thorpe
CertMark International Pty Ltd

30/08/2018
Date of Issue

CM40231-I01-R01
Certificate Number

- This certificate is issued by an independent certification body accredited by the product certification accreditation body appointed by the Chief Executive of the Ministry of Business, Innovation & Employment (MBIE) under the Building Act 2004. MBIE does not in any way warrant, guarantee, or represent that the building method or product the subject of this certificate conforms to the New Zealand Building Code, nor accept any liability arising out of the use of the building method or product. MBIE disclaims, to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages, and costs arising as a result of the use of the building method(s) or product(s) referred to in this certificate
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A1 Product or System Specification

Technical properties

Flexural modulus	7.51 X 10 ⁶ KPa
Flexural strength	7.205 X 10 ³ KPa
Compressive strength	2.07 X 10 ⁴ KPa
Shear strength	2.7 X 10 ³ KPa
Moisture content	8%
Impact resistance	2.237Nm
Fungus/mould	Non-nutrient

Distributed Live Loads

Joist Spacing

Deflection	(305mm)	(406mm)	(488mm)	(610mm)
L/240	44.24KPa	18.817KPa	10.773KPa	5.267KPa
L/360	29.159KPa	12.305KPa	7.134KPa	3.878KPa
L/480	22.121KPa	9.241KPa	5.363KPa	2.969KPa

Load For Maximum Allowable Stress

Panel	305mm oc	406mm oc	610mm oc
11.1mm	65.404KPa	35.958KPa	16.088KPa
14.3mm	124.920KPa	70.384KPa	31.314KPa

A2 Installation Requirements

Only to be installed in accordance with [DragonBoard® installation guide June 2018](#).

A3 Other Relevant Technical Data

Span geometry

Maximum Distributed Live Load	= 5.0kPa
Maximum Point Load	= 2.0kN
Deflection of 1mm under 1kN computed	
Deflection Limit of Span/300 is not exceeded under the above design loads	
The resulting design Flexural Capacity achieved is $\Phi_b M_{bx}=5.6\text{MPa}$, and the design Modulus of Elasticity= 4395MPa , in SI Units	
The resulting design Flexural Capacity achieved is $\Phi_b M_{bx}=5.6\text{MPa}$, and the design Modulus of Elasticity= 4395MPa , in SI Units	

For the span geometry assumed above, the following load capacities and deflection performance is calculated:

Maximum Distributed Live Load	= 5.0kPa
Maximum Point Load	= 2.0kN
Deflection of 1mm under 1kN computed	
Deflection Limit of Span/300 is not exceeded under the above design loads	

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Reviewing these results against the minimum requirements of Table 3.1 AS/NZS 1170:2004 – “Structural Design Actions”:

- The Distributed Load Capacity exceeds the requirements for Domestic (2.0kPa), Office (3.0kPa) and File rooms/Office storage (5.0kPa) space use types
- The Point Load Capacity exceeds the requirements for Domestic space use types (1.8kN), but not Office (2.7kN) and File rooms/Office storage (4.5kN) space use types
- The Deflection is not a governing criteria.

B1 Basis of CodeMark Certification

The DragonBoard® has been evaluated in accordance with the requirements of the Building (Product Certification) Regulations 2008 Clause 8. CMI has followed procedures for certifying the DragonBoard® that are based on evidence established by:

- Testing of the DragonBoard® product at accredited testing facilities;
- Assessing a quality plan for the Dragon Board that conforms to ISO 10005 and the CodeMark scheme rules;
- By reviewing testing of, samples supplied to ascertain whether or not the product meets the performance requirements specified on this certificate; and
- Conducting site audits of the factory to verify compliance of the DragonBoard®.

B2 Sources of Information

1. Structural testing to confirm properties as described above.
2. Durability reports to confirm properties as described above.
3. Material safety and product composition reports to confirm properties as described above.
4. AS 3566.1-2002 (R2015) Self-drilling screws for the building and construction industries.
5. AS/NZS 1170:2004 Structural design actions.
6. PROPERTY PROGRAMMES CONSULTANCY Report UBC 1773 dated 24/1/2019 Compliance with C3.4 (a) fire.
7. Red Fire and Façade Consultants report RO7A15A dated 7 May 2018.
8. Fire Check Consultants report FCC.181207.CA01 dated 7 December 2018.
9. Intertek report 180423003SHF-BP-1 dated 24 May 2018.

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