

MAGLOK™ DRAGONBOARD®

PURPOSE

Maglok™ DragonBoard® (Maglok™) is a non-combustible board suitable for use as an internal flooring and/or as part of the fire rated acoustic SoundDown floor/ceiling system.

DESCRIPTION

Maglok™ is a chloride free MgO board. Chloride free MgO boards are also referred to as MGSO4 board or sulphate based MgO board.

The boards are manufactured by combining magnesium oxide (MgO), magnesium sulphate, proprietary fibres and perlite with a water slurry. This mixture is then placed into moulds with layers of fibreglass mesh.

The Maglok™ boards are supplied as follows:

- thickness (mm) 20.
- panel dimensions (mm): 1800 x 1200, 2000 x 1200.

The boards have a shiplap edge which runs down the length of the panel and therefore avoids the need for installation of additional subfloor support.

The panel face has a smooth side and rough side. This provides the option for different finishes..



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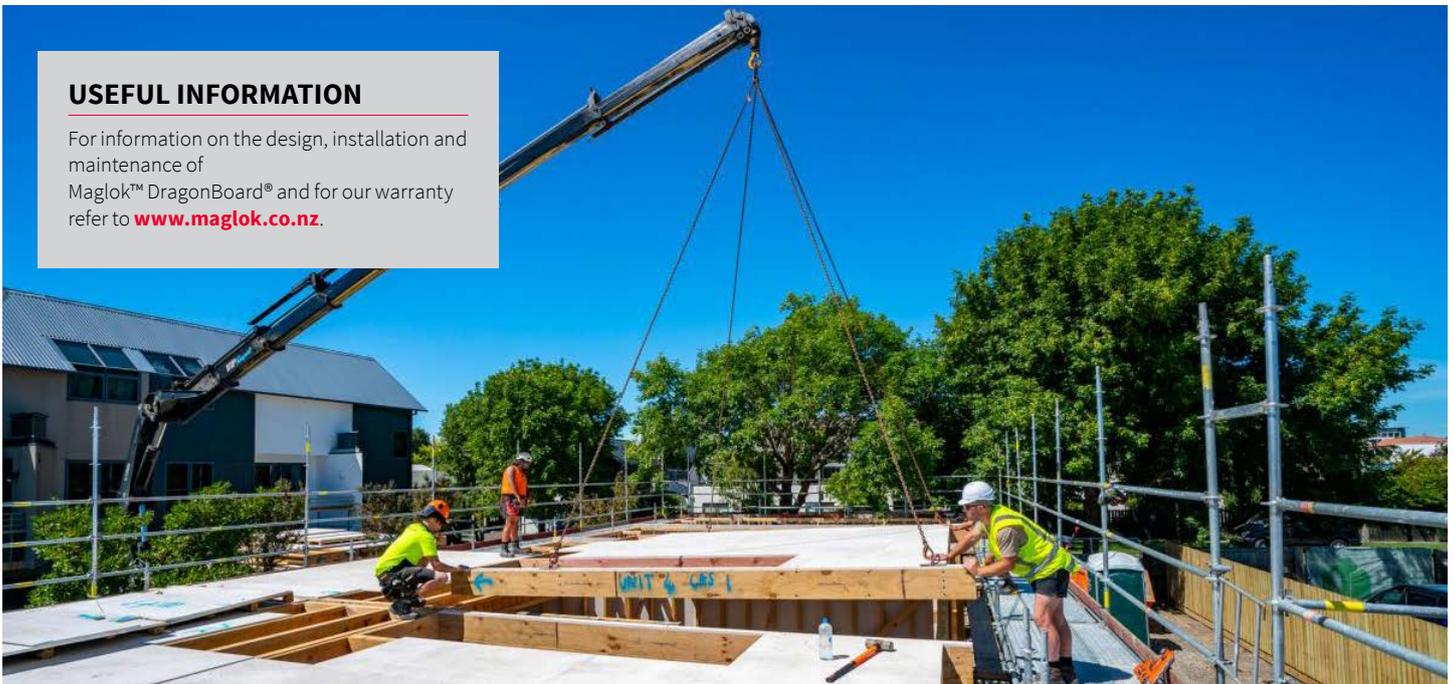


SCOPE AND LIMITATIONS OF USE

Scope	Limitations
<p>Building</p> <p>In conjunction with a primary structure that complies with the NZ Building Code or where the designer or installer have satisfied themselves that the existing structure is suitable for the intended building work.</p> <p>In conjunction with a structural support system of lightweight steel, timber, engineered composite joists, metal deck and reinforced concrete.</p> <p>As an acoustic floor and fire rated system.</p>	<ul style="list-style-type: none"> ➤ Suitable up to a specific design live load (UDL) of 5 kPa. ➤ Where used with steel framing DPC or a separation layer is required. ➤ Minimum span spacings for use as a floor or ceiling panel are as follows: <ul style="list-style-type: none"> • 600 mm and 450 mm for panel size 1800 mm x 1200 mm • 400 mm for panel size 2000 mm x 1200 mm. ➤ Fixings must be in accordance with Maglok™ requirements. ➤ The Maglok™ board should be overlaid with vinyl or similar, seams should be filled and sanded flush to create a uniformly smooth surface. ➤ Where subject to high humidity or moisture, the panel must be protected with an impervious coating. ➤ Must be installed as part of the SoundDown flooring system.

USEFUL INFORMATION

For information on the design, installation and maintenance of Maglok™ DragonBoard® and for our warranty refer to www.maglok.co.nz.



PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Global Procurement Supplies requirements, the Maglok™ DragonBoard® will comply with or contribute to compliance with the following performance claims:

NZ Building Code clauses		BASIS OF COMPLIANCE	
Code clauses	Compliance statement	Demonstrated by	
B1 Structure B1.3.1, B1.3.2, B1.3.3 (a), (b), (e), (f), (i), (j), (m) & (q), B1.3.4 (a, b, c, d, e)	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> ➤ Expert analysis of load capacity [Engenium, 23/08/2018]. ➤ Tested to ASTM C1185-08:2016 (modulus of rupture) and ASTM D6109-97 (modulus of elasticity, shear and flexural strength) [NTA, 09/2018; New York Product & Testing Services Inc, 18/11/2003]. ➤ Meets bending strength and modulus of rupture requirements of AS/NZS 1860, as cited in section 2.3.6 of NZS 3604:2011 and comparable product certified under section 269 [TBB, 01/2022] 	
B2 Durability B2.3.1 (a), B2.3.2 (a)	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> ➤ Meets bending strength and modulus of rupture requirements of AS/NZS 1860, as cited in section 2.3.6 of NZS 3604:2011 and comparable product certified under section 269 [TBB, 01/2022]. ➤ Sulphate MgO board not subject to tearing at relative humidity range of 40 to 60% [BRANZ, 16/11/2017; TBB, 01/2022]. ➤ Tested to ASTM G21 for growth of fungus [New York Product & Testing Services Inc, 17/01/2003]. 	
C3 Fire affective areas beyond the fire source C3.4 (a, b), C3.7 (a)	ACCEPTABLE SOLUTION C/AS2	<ul style="list-style-type: none"> ➤ Meets paragraph 4.17.3 of C/AS2. Non combustible, tested to AS 1530.1:1994 [Intertek, 24/05/2018; Ignis Solutions, 16/07/2017]. ➤ Class A, tested to ASTM E84 [Global Product Testing Laboratories, 01/04/2016]. 	
C6 Structural stability C6.2	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> ➤ UL. BXUV.G575 Fire Resistance Ratings. [21/11/2019]. ➤ Fire Check Consultants Pty Ltd [07/12/2018]. ➤ Ignis Solutions. Evaluation of compliance. [16/07/2017]. 	
F2 Hazardous Building Materials F2.3.1	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> ➤ Use in accordance with manufacturer's use and safety requirements [Dragonboard USA, 16/02/2018]. ➤ ASTM G21. New York Product & testing services Inc. [17/01/2003]. 	
G6 Airborne and Impact Sound G6.3.1	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> ➤ Tested to ASTM E492-04 and ASTM E 989-06. 	

SOURCES OF INFORMATION

- NTA, Inc. [Sept 2018] ASTM C1185-08 (2016). *Standard Test Method for Sampling and Testing- Flexural Strength (Modulus of Rupture)*. Report No. CHSN062618-22.
- UL. [29/11/2019] BXUV.G575. *Fire resistance ratings*. Retrieved from <https://iq.ulprospector.com/en/profile?e=14072>. [Accessed 10/03/2020].
- DragonBoard USA. [16/02/2018] *Safety Data Sheet*.
- NGC Testing Services. [10/12/2009] ASTM E 492-04/ASTM E 989-06. *Impact Sound Transmission Test*. Report No. NGC 7009099.
- Engenium. [23/08/2018]. *SI Unit Conversion and Load Capacity – MAGLOK Dragon Flooring Board*. File. E1309/0.
- Intertek. [24/05/2018] AS1530.1-1994. *Method for fire tests on building materials: Combustibility test for materials*. Test report no: 180423003SHF-BP-1.
- Ignis Solutions. [16/07/2017]. *Ignis Advisory Note Evaluation* No. IGNIS-5218 Issue 01 Revision 00 [2017].
- Fire Check Consultants Pty Ltd. [07/12/2018] *Fire resistance rating of 12 mm DragonBoard*. ABN: 79 612 210 616.
- New York product testing & services Inc. [17/01/2003] ASTM G21. *Standard practice for determining resistance of synthetic polymeric materials to fungi*. Lab No. 03-107565.
- Global Product Testing Laboratories. [04/04/2016] ASTM E 84. *Surface Burning Characteristics of Building Materials*. Lab no. 16-1673.
- New York Product & Testing Services Inc. [18/11/2004] ASTM D6109. *Standard test methods for flexural properties of unreinforced and reinforced plastic lumber and related products*. Lab no. 02-107473B.
- TBB [01/2022]. Product Performance Evaluation Maglok™ DragonBoard®. V1.0.
- BRANZ [16/11/2017]. Humidity and condensation. Retrieved from <https://www.level.org.nz/passive-design/controlling-indoor-air-quality/humidity-and-condensation/>. [Accessed on 17/01/2022].

Scan or click this QR code for a full download of Compliance Documentation for this pass™.

www.maglok.co.nz/technical-documents/



1. Where a standard is referenced it is to be read as amended by the acceptable solution or verification method as applicable.
2. Sources of information also include the Building Act 2004 and its regulations, including the Building Code (Schedule 1 of the Building Regulations 1992), Acceptable Solutions and Verification Methods, and relevant cited standards.

Global Procurement Supplies Ltd confirms that if Maglok™ DragonBoard® is used in accordance with the requirements of this pass™ the product will comply with the NZ Building Code and other performance claims set out in this pass™ and the company has met all of its obligations under s14 G of the Building Act.

Date of first issue: 21/04/2020
Date of current issue: 08/02/2022
NZBN: 9429039131843

Kevin Brunton

Kevin Brunton, Technical Director, TBB confirms that this pass has been prepared on behalf of Global Procurement Supplies Ltd and in accordance with MBIE PTS guidelines and in accordance with the TBB pass™ process which is within the scope of TBB's ISO 9001 certification.

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