

# MAGLOK™ DRAGONBOARD® MAGNESIUM SULPHATE BOARD

## PURPOSE

Maglok™ DragonBoard® (Maglok™) Magnesium Sulphate board is a non-combustible board suitable for use as an internal structural floor and ceiling panel. Depending on installation it may form part of an acoustic barrier and provide non-structural fire resistance.

## DESCRIPTION

Maglok™ is manufactured by combining Magnesium oxide (MgO), Magnesium sulphate, proprietary fibres with a water slurry. It is then placed in moulds with layers of fibreglass mesh. When dried and cured the panel has high-impact resistance and is water, fire and mould resistant.

The panels are 20 mm thick and available in panel sizes of 1800 mm x 1200 mm and 2000 mm x 1200 mm.

A shiplapped joint runs down the length of the panel, which avoids the need for installation of additional subfloor support.

The panel has a smooth side and rough side. This provides the option of different finished flooring options.



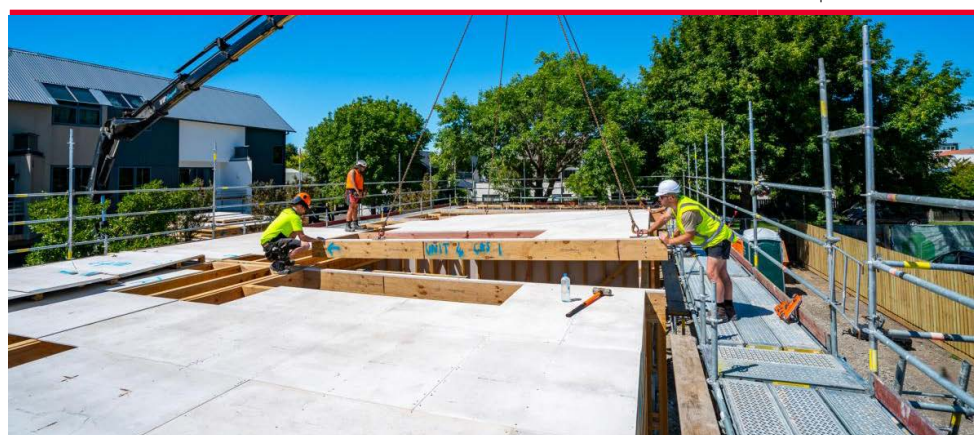
For further assistance please contact:

- ☎ +64 21 969 905
- ✉ lester@ljmarketing.co.nz
- 🌐 [www.maglok.co.nz](http://www.maglok.co.nz)



## SCOPE AND LIMITATIONS OF USE

Scope	Limitations
<b>Building</b>	
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.	<ul style="list-style-type: none"> <li>➤ Suitable up to a specific design load (UDL) of 5 kPa and maximum pint load of 4.4 kPa.</li> <li>➤ Where used when steel framing building wrap or DPC is required.</li> <li>➤ Minimum span spacings as follows:               <ul style="list-style-type: none"> <li>➤ 600 mm and 450 mm for panel size 1800 mm x 1200 mm</li> <li>➤ 400 mm for panel size 2000 mm x 1200 mm.</li> </ul> </li> <li>➤ Fixings in accordance with Maglok™ requirements.</li> </ul>
In all building uses.	<ul style="list-style-type: none"> <li>➤ Where overlaid with vinyl or similar, seams should be filled and sanded flush to create a uniformly smooth surface.</li> <li>➤ Where subject to high humidity or moisture, the panel must be protected with an impervious coating.</li> </ul>
As an acoustic floor system.	<ul style="list-style-type: none"> <li>➤ The panel, when installed in accordance with Maglok™ installation requirements can meet an STD 65 db.</li> </ul>
As a non-structural fire-rated floor system.	<ul style="list-style-type: none"> <li>➤ The panel, when installed in accordance with Maglok™ installation requirements can achieve an FRR -/120/120.</li> </ul>



## USEFUL INFORMATION

For information on the design, installation and maintenance of Maglok™ DragonBoard® and for our warranty refer to [www.maglok.co.nz](http://www.maglok.co.nz).

## PERFORMANCE CLAIMS

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

NZ Building Code clauses	BASIS OF COMPLIANCE <sup>1</sup>	
	Compliance statement	Demonstrated by
<b>B1 Structure</b> 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"> <li>➤ Expert opinion, Engenium [23/08/2018].</li> <li>➤ ASTM C1185-08:2016 Modulus of Rupture [Sept 2018].</li> <li>➤ BXUV.G575- UL Certification No. G575 [Nov 2019].</li> <li>➤ ASTM D6109. New York Product &amp; Testing Services Inc. [18/11/2004].</li> </ul>
<b>B2 Durability</b> B2.3.1 (a), B2.3.2 (a)	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>➤ MBIE. Determination 2013/032 [12/06/2013].</li> </ul>
<b>C3 Fire affective areas beyond the fire source</b> C3.4 (a, b) C3.7 (a)	ACCEPTABLE SOLUTION	<ul style="list-style-type: none"> <li>➤ Achieves material group number 1S.</li> <li>➤ Flooring to be non-combustible or tested to ISO 9239-1 [C/AS2, para. 4.17.3].</li> <li>➤ Fire Check Consultants [07/12/2018].</li> <li>➤ AS1530.1:1994. Intertek [24/05/2018].</li> <li>➤ Global Product Testing Laboratories [04/04/2016].</li> </ul>
<b>C6 Structural stability</b> C6.2	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>➤ BXUV.G575 Fire Resistance Ratings [21/11/2019].</li> </ul>
<b>F2 Hazardous Building Materials</b> F2.3.1	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>➤ Safety Data Sheet CFR1910.1200 [16/02/2018].</li> <li>➤ ASTM G21. New York Product &amp; testing services Inc. [17/01/2003].</li> </ul>
<b>G6 Airborne and Impact Sound</b> G6.3.1	ALTERNATIVE SOLUTION	<ul style="list-style-type: none"> <li>➤ ASTM E 492-04/ASTM E 989-06. Impact Sound Transmission [Dec 2009].</li> </ul>

1. The Compliance Statement is the pass holder's statement that they have met their obligations under s14G(2) of the Building Act 2004.


## SOURCES OF INFORMATION<sup>2</sup>

- 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.
- Coombes, G. [23/08/2018] *SI Unit Conversion and Load Capacity – MAGLOK Dragon Flooring Board*. Engenium. 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.
- Sharma, T. [07/12/2018] *Fire resistance rating of 12 mm DragonBoard*. Fire Check Consultants. 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.
- MBIE. [12/06/2013] *The refusal to grant building consent for a prefabricated building*. Determination 2013/032. Retrieved from <https://www.building.govt.nz/assets/Uploads/resolving-problems/determinations/2013/2013-032.pdf>. [Accessed 10/03/2020].

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.

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

[www.maglok.co.nz](http://www.maglok.co.nz)



<b>VERSION:</b> .....	<b>DATE:</b> .....	Signed on behalf of DragonBoard® USA:
<i>Note: Uncontrolled in printed format.</i>		
<b>NAME:</b> .....	Lester Haycock	By signing this pass™ the signatory confirms that, in respect of the subject of this pass™, the company has met their s14G obligations under the Building Act 2004.
<b>POSITION:</b> .....	Manufacturer's Representative	



**PO Box 282272, Beachlands, Auckland 2147. ➤ lester@ljmarketing.co.nz ➤ +64 21 969 905 ➤ www.maglok.co.nz**

This Product Assurance Supplier Statement (pass™) has been prepared by TBB in accordance with MBIE PTS guidelines and the recommendations of s9.2, Determination No. 2019-011 (issued 12 April 2019). TBB is ISO9001:2016 certified. Copyright © 2017, The Building Business Limited (TBB). All rights reserved.