

TEST CERTIFICATE

Customer: **Builditeco Holdings Pty Ltd**
Innovative Building Solutions

Sample Board Product: 20mm thick Magnesium Oxide Sheet

AS Test Specification: AS1770.1 : 2002, Table 3.1 For Residential & Office
Imposed Floor Actions

Date of Test: 06 March 2012

Objective of Test:

The objective of the static load test is to test the sample board product for use as a flooring board in accordance with the concentrated load criteria for floors (1.8kN for residential floors, and 2.7kN for office floors) as specified in Table 3.1, AS 1170.1: 2002, and Table C1 (Suggested Serviceability Limit State Criteria), AS/NZS 1170.0:2002.

Test Procedure:

The 900mmx1800mmx20mm board sheet is simply supported on a continuous 3-600mm spans across 4 joists. A 100mmx100mm square steel plate with a 1.5m long tube was installed at the centre of the span. The steel plate was used as a bearing plate for the imposed floor actions of 1.80kN and 2.70kN using the gym weights placed onto the tube.

Results of Testing:

Loads	Outer Span	Interior Span
1.80kN (residential floors)	Maximum Deflection @ 1.80kN=1.80mm Residual Deflection=0	Maximum Deflection @ 1.80kN=1.60mm Residual Deflection=0
2.70kN (office floors)	Maximum Deflection @ 2.70kN=4.0mm Residual Deflection=0	Maximum Deflection @ 2.70kN=2.20mm Residual Deflection=0

AS Standards

Table 3.1 (AS1170.1:2002)

Type of Occupancy	Specific Use	Uniform Load	Concentrated Load
Residential	General area, bedroom, hospital wards, hotel rooms, toilet areas	2.0kPa	1.80kN
Offices & Work Areas	Offices for general use	3.0kPa	2.70kN

Table C1 (Suggested Serviceability Limit State Criteria) AS/NZS 1170.0:2002

Element	Serviceability Parameter	Maximum Deflection
Magnesium Oxide Board	Midspan Deflection	Span/200=600/2=3.0mm

Conclusion:

This is to certify that the 20mm Magnesium Oxide Sheet pass and meet the concentrated load criteria for floors as specified in Table 3.1, AS 1170.1:2002, and the maximum deflection for Serviceability Limit State Criteria as specified in Table 3.1 (AS1170.0:2002). Therefore the board sheet is suitable for use as flooring boards in buildings.


Michael Young
MICHAEL YOUNG BE MIE (276833)
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Structural Engineers
Prompt certification

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