
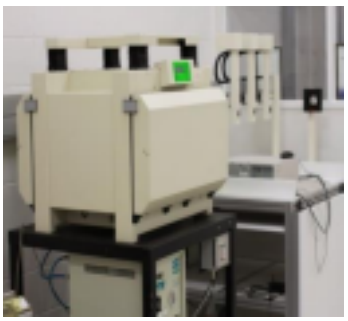


TEST REPORT

DI18289-01

THERMAL TESTING OF AN INSULATION SAMPLE

CLIENT
Premium Garage doors
26 mckenzie street levin

All tests and procedures reported herein, unless indicated, have been performed in accordance with the laboratory's scope of accreditation

BRANZ

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NATA

IANZ

TO WHOM IT MAY CONCERN

Both NATA (National Association of Testing Authorities, Australia) and IANZ (International Accreditation New Zealand) are signatories to the ILAC Mutual Recognition Arrangement. Under the terms of this arrangement, each signatory:

(i) recognises within its scope of recognition of this Arrangement the accreditation of an organisation by other signatories as being equivalent to an accreditation by its own organisation,

(ii) accepts, for its own purposes, endorsed* certificates or reports issued by organisations accredited by other signatories on the same basis as it accepts endorsed* certificates or reports issued by its own accredited organisations,

(iii) recommends and promotes the acceptance by users in its economy of endorsed* certificates and reports,

* *The word "endorsed" means a certificate or report bearing an Arrangement signatory's accreditation symbol (or mark) preferably combined with the ILAC-MRA Mark.*

Signed:

Jennifer Evans
NATA CEO

Date: 24 March 2014

Dr Llewellyn Richards
IANZ CEO

Date: 24th March 2014

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1. TEST SPONSOR

Premium Garage Doors Ltd

2. LIMITATION

The results reported here relate only to the item/s tested.

3. TERMS AND CONDITIONS

This report is issued in accordance with the Terms and Conditions as detailed and agreed in the BRANZ Services Agreement for this work.

4. TEST SAMPLES

The specimens were supplied by the client and consisted of 3 pieces of white compressed timber particleboard. The dimensions of the samples were approximately 610 mm x 610 mm.

5. TEST EQUIPMENT

All tests reported have been undertaken at BRANZ Ltd laboratories located at Judgeford, unless stated otherwise. The ASTM C518 compliant test equipment used was a LaserComp FOX600 heat flow meter and Wintherm software. The specimen for testing is placed horizontally in the apparatus. The hot and cold plates each have a 250 mm x 250 mm heat flux transducer embedded in their surface. The edges of the specimen are insulated from the room ambient temperature.

Table 1: Test condition set-points

Nominal Upper Plate Temperature	2.0 °C
Nominal Lower Plate Temperature	28.0 °C
Nominal Difference in Temperature	26.0 K
Nominal Mean Temperature	15.0 °C

6. PROCEDURE

The specimen was tested at the actual thickness, to the requirements of ASTM

C518. **6.1.1 Measurement uncertainty**

The estimated overall uncertainty of measurement is 2.0%.

7. CONDITIONING

The sample segments were conditioned for at least 24 hours at 23 ± 3 °C, prior to the thermal performance measurements.

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8. RESULTS

Table 2: Measured results for the test specimens

Calibration check	06/11/23 SR07	
BRANZ reference		D7122A
Client reference		-
Sample weight	gram	497
'grams per sq. metre'	g/m^2	1531.6
Test date		09/11/23
Measured (test) thickness	mm	38.4
Density	Kg/m^3	39.9
Mean test temperature	°C	15.0
Temperature difference	K	26.0
Heat-flux	W/m^2	14.71
Thermal resistance	m^2K/W	1.77
Thermal conductivity (λ)	W/mK	0.0217
Difference between heat flux transducers	%	1.2

* Thermal conductance can be calculated by dividing the thermal conductivity by the thickness of the specimen * Average temperature gradient in the specimen during test can be calculated by dividing the temperature difference by the thickness of the specimen
* The minimum duration of the measurement portion of the test once steady state (0.2% / 12 mins) is achieved is 6 minutes

9. REFERENCES

ASTM C518 *Standard Test Method for Steady-State Heat Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus*.
American Society for Testing and Materials, Philadelphia, PA, 2017.

This is the end of the report

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