

Certificate of Test

QUOTE No.: NC8231

REPORT No.: FNC12462

COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994

SPONSOR: James Hardie Research Pty. Ltd.
Gate 1, 10 Colquhoun St
ROSEHILL NSW 2142
AUSTRALIA

DESCRIPTION OF TEST SAMPLE:

The sponsor described the tested specimen as an aluminium material representative of the aluminium used for James Hardie aluminium accessories and Ritek Wall Systems. The aluminium was tested without any coating.

Nominal thickness: 50 mm
Nominal density: 2700 kg/m³
Colour: silver

TEST PROCEDURE:

Five (5) samples were tested in accordance with Australian Standard 1530 Methods for fire tests on building materials, components and structures, Part 1- 1994: Combustibility Test for Materials.

An alternative suitable insulating material was used to fill the annular space between the furnace tubes, as specified in Clause 4.2 of ISO 1182:2010.

RESULTS:

The following calculated results were obtained, refer also to Summary of measurements:

Arithmetic mean	$= \frac{\Sigma \text{results}}{5}$
Mean furnace thermocouple temperature rise (°C)	9.75
Mean specimen centre thermocouple temperature rise (°C)	13.18
Mean specimen surface thermocouple temperature rise (°C)	10.96
Mean duration of sustained flaming (s)	0
Mean mass loss (%)	0.21

DESIGNATION:

The material is **NOT** deemed combustible according to the test criteria specified in Clause 3.4 of AS 1530.1-1994.

These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use.

DATE OF TEST: 24 September 2019

Issued on the 14th day of October 2019 without alterations or additions.



Faustin Molina
Testing Officer



Stephen Smith
Team Leader, Reaction to Fire & Façade Fire Laboratory

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NATA Accredited Laboratory

Number: 165

Corporate Site No 3625

Accredited for compliance with ISO/IEC 17025 - Testing.

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SUMMARY OF MEASUREMENTS AND OBSERVATIONS OF SAMPLES UNDER TEST C12462

Parameters	Symbol or expression	Unit symbol	Sample Number				
			1	2	3	4	5
Initial specimen mass	m_{si}	g	205.75	204.71	204.55	204.35	205.96
Final specimen mass	m_{sf}	g	205.46	203.65	204.15	203.97	205.89
Mass loss	$\Delta m = \frac{M_{si} - M_{sf}}{M_{si}} \times 100$	%	0.14	0.52	0.20	0.19	0.03
Total duration of sustained flaming	Cumulative total of duration of flaming*	s	0	0	0	0	0
Initial furnace thermocouple temperature	T_{fi}	°C	750	750	753	753	753
Maximum furnace thermocouple temperature	T_{fm}	°C	803	804	789	788	785
Final furnace thermocouple temperature	T_{ff}	°C	796	795	780	779	770
Furnace thermocouple temperature rise	$\Delta T_f = T_{fm} - T_{ff}$	°C	7	9	9	9	15
Maximum specimen centre thermocouple temperature	T_{cm}	°C	709	733	695	714	703
Final specimen centre thermocouple temperature	T_{cf}	°C	702	720	691	704	670
Specimen centre thermocouple temperature rise	$\Delta T_c = T_{cm} - T_{cf}$	°C	7	13	4	10	33
Maximum specimen surface thermocouple temperature	T_{cm}	°C	767	774	775	773	767
Final specimen surface thermocouple temperature	T_{sf}	°C	757	765	768	761	751
Specimen surface thermocouple temperature rise	$\Delta T_s = T_{cm} - T_{sf}$	°C	10	9	7	12	16
Test duration	-	min	105	115	110	140	180

* Any individual duration flaming less than 5 seconds was discarded

End of Test Certificate