

CERTIFICATE

Material Fire Test Certificate

IGNL-8084-01-01C I01 R00

DATE OF TEST 11.04.2024
08.05.2024
ISSUE DATE 08.05.2024
EXPIRY DATE 07.05.2029

AS 1530.1:1994
Combustibility test for materials

SPONSOR
Trafalgar Group
26a Ferndell Street
South Granville, NSW 2142

TEST BODY
Ignis Labs Pty Ltd
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Test body is the test location



NATA Accredited Laboratory
Number: 20534 Site number: 24604
Accredited for compliance with
ISO/IEC 17025 - Testing

Specimen Identification

Boardex

Specimen Description

The sponsor described the test specimen as Boardex. It is composed of gypsum boards with glass reinforced matting. It has a nominal density of 860 kg/m³ and a nominal thickness of 12.5 mm. The sponsor described it is typically used in the application of fire protection in bushfire prone areas as a vapour permeable, moisture and UV resistant exterior sheeting product. It is white in colour with orange facings.

The specimens were received as prefabricated discs with a nominal thickness of 12.27 mm. The discs had a white powdery core and were faced on both sides with orange fibrous matting. Some of the discs contained black branding on one face. Discs were selected to construct five specimens. Each specimen comprised four discs.

Ignis Labs was not responsible for the sampling stage. All specimens were sampled by the test sponsor. The test results apply to the specimens as received.

The test specimens are cylindrical, and each has:

(a) Nominal diameter (mm):	44.28
(b) Nominal height (mm):	49.11
(c) Nominal volume (cm ³):	75.57
(d) Nominal Mass (g):	63.94
(e) Colour:	White core and orange facing

Test Method

Five (5) specimens were tested in accordance with Australian Standard 1530 Methods for fire tests on building materials, components and structures, Part 1 – 1994: Combustible test for Materials. The test apparatus is constructed in accordance with the requirements of ISO 1182:2010 which has been verified to be equivalent to the apparatus requirements of AS 1530.1:1994 with the exception that a suitable alternative insulating material was used to fill the annular space between the furnace tubes, as specified in Clause 4.2 of ISO 1182:2010. Clause 1.4 of AS 1530.1 states that the test method is not applicable to products which are coated, faced, or laminated and as such the tested material may not be suitable for testing.

Observations

The test specimens exhibited equivalent results, and none ignited. No significant observations were observed during the test. Temperature equilibrium was not reached for specimens 2, 3, and 4, and these tests were ended at 60 minutes. After the test the orange matting had faded in colour.

Results

The specimen achieved the following results:

	Symbol	Arithmetic
Mean furnace thermocouple temperature rise:	ΔT_f	0.60 °C
Mean specimen centre thermocouple temperature rise:	ΔT_c	0.17 °C
Mean specimen surface thermocouple temperature rise:	ΔT_s	0.25 °C
Mean duration of sustained flaming:		0 s
Mean mass loss:		18.5 %

Combustibility

The specimens are NOT deemed COMBUSTIBLE according to the test criteria specified in Clause 3.4 of AS 1530.1:1994.


Test Supervisor
Darren Laker


Technical Lead
Jessica Ying

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Disclaimer 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. The information contained in this document is provided for the sole use of the recipient and no reliance should be placed on the information by any other person. In the event that the information is disclosed or furnished to any other person, Ignis Labs Pty Ltd accepts no liability for any loss or damage incurred by that person whatsoever as a result of using the information.

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SUMMARY OF MEASUREMENTS AND OBSERVATIONS OF SPECIMENS UNDER TEST

Parameter	Symbol or expression	Unit Symbol	Specimen Results				
			1	2	3	4	5
Atmospheric temperature	-	°C	19.00	19.80	20.80	21.30	20.60
Humidity	-	%RH	45.90	43.80	51.10	46.80	51.10
Height	h	mm	49.41	48.96	48.75	49.10	49.32
Diameter	d	mm	44.24	44.24	44.28	44.43	44.19
Initial specimen volume	V	cm ³	75.91	75.22	75.03	76.09	75.60
Initial specimen mass	msi	g	66.09	65.07	57.16	65.42	65.97
Density	r	kg/m ³	870.64	865.10	761.83	859.76	872.62
Sample holder weight	w	g	14.57	14.80	14.12	14.40	15.28
Final specimen mass	msf	g	52.67	51.75	50.93	51.96	52.60
Mass loss	$\Delta m = (msi - msf) / msi * 100$	%	20.31	20.47	10.90	20.57	20.27
Total duration of sustained flaming	Cumulative total of duration of flaming	s	0	0	0	0	0
Initial furnace thermocouple temperature	Tfi	°C	748.20	746.70	750.00	749.60	748.00
Maximum furnace thermocouple temperature	Tfm	°C	756.60	751.20	760.80	784.60	762.20
Final furnace thermocouple temperature	Tff	°C	756.00	750.60	760.00	784.40	761.40
Furnace thermocouple temperature rise	$\Delta T_f = T_{fm} - T_{ff}$	°C	0.60	0.60	0.80	0.20	0.80
Maximum specimen centre thermocouple temperature	Tcm	°C	732.37	739.17	737.77	745.97	728.77
Final specimen centre thermocouple temperature	Tcf	°C	732.30	739.00	737.50	745.70	728.70
Specimen centre thermocouple temperature rise	$\Delta T_c = T_{cm} - T_{cf}$	°C	0.07	0.17	0.27	0.27	0.07
Maximum specimen surface thermocouple temperature	Tsm	°C	783.77	778.67	777.47	776.57	784.97
Final specimen surface thermocouple temperature	Tsf	°C	783.60	778.50	777.10	776.40	784.60
Specimen surface thermocouple temperature rise	$\Delta T_s = T_{sm} - T_{sf}$	°C	0.17	0.17	0.37	0.17	0.37
Test duration	t	min	55.00	60.00	60.00	60.00	55.00

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END OF TEST CERTIFICATE