CERTIFICATE

Material Fire Test Certificate

IGNL-4157-01C I01 R01

DATE OF TEST	01.12.2020
ISSUE DATE	04.12.2020
RENEWED DATE	16.09.2025
EXPIRY DATE	15.09.2030

AS 1530.1:1994
Combustibility test for materials

SPONSOR
Network Architectural
71 Marigold Street
Revesby NSW 2212

TEST BODY
Ignis Labs Pty Ltd
ABN 36 620 256 617
3 Cooper Place
Queanbeyan NSW 2620
Australia
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(02) 6111 2909
Test body is the test location

Specimen Identification

Aluminium Skin of Mitsubishi Alpolic

Specimen Description

The sponsor described the tested specimen as:
Aluminium skin of composite panel. The nominal thickness of the specimen is 0.5mm and the end use being cladding. Individual pieces are stacked together to the required specimen height for each test.

The test specimens are cylindrical, and each has:

(a)	Nominal diameter (mm):	44.68
(b)	Nominal height (mm):	51.64
(c)	Nominal volume (cm^3)	80.93
(d)	Nominal Mass (g):	204.62
(e)	Colour:	Silver

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.

Observations

All five specimens exhibited equivalent performance. No ignition was observed. The tests were stopped after 30 min due to the phase change of the specimen (melting). The specimens, being aluminium, have a melting temperature of approximately 600°C and, therefore, evaluated in accordance with Clause A4 of AS 1530.1-1994 as applicable to thermally unstable materials. The tests were undertaken at 750±5°C, at which temperature stabilisation was evaluated.

Results

The specimen achieved the following results:

	Symbol	Arithmetic
Mean furnace thermocouple temperature rise:	ΔTf	2.10 °C
Mean specimen centre thermocouple temperature rise:	ΔTc	4.80 °C
Mean specimen surface thermocouple temperature rise:	ΔTs	8.42 °C
Mean duration of sustained flaming:		0 s
Mean mass loss:		0.30%

Combustibility

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

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

Test Supervisor
Darren Laker

Technical Lead
Tom Lewis

Check the validity of this certificate through the QR Code

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	20.20	20.80	22.90	24.00	24.60
Humidity	-	%RH	63.30	68.00	52.20	49.60	48.40
Height	h	mm	51.36	51.61	50.79	51.58	52.87
Diameter	d	mm	44.77	44.47	44.67	44.59	44.90
Initial specimen volume	V	cm^3	80.81	80.12	79.56	80.51	83.67
Initial specimen mass	msi	g	205.00	202.91	203.06	202.95	209.19
Density	r	kg/m^3	2536.79	2532.59	2552.38	2520.94	2500.17
Sample holder weight	w	g	0.63	0.64	0.64	0.63	0.63
Final specimen mass	msf	g	204.38	202.32	202.44	202.36	208.58
Mass loss	Δm=(msi-msf)/msi*100	%	0.30	0.29	0.31	0.29	0.29
Total duration of sustained flaming	Cumulative total of duration of flaming	s	0.00	0.00	0.00	0.00	0.00
Initial furnace thermocouple temperature	Tfi	°C	749.70	746.10	747.80	743.60	748.10
Maximum furnace thermocouple temperature	Tfm	°C	718.50	730.80	730.70	724.60	718.30
Final furnace thermocouple temperature	Tff	°C	714.97	729.71	728.25	722.92	716.57
Furnace thermocouple temperature rise	ΔTf=Tfm-Tff	°C	3.53	1.09	2.45	1.68	1.73
Maximum specimen centre thermocouple temperature	Tcm	°C	659.30	711.20	726.80	725.10	722.20
Final specimen centre thermocouple temperature	Tcf	°C	658.75	708.67	720.16	716.51	716.51
Specimen centre thermocouple temperature rise	ΔTc=Tcm-Tcf	°C	0.55	2.53	6.64	8.59	5.69
Maximum specimen surface thermocouple temperature	Tsm	°C	693.80	681.40	677.10	682.20	694.70
Final specimen surface thermocouple temperature	Tsf	°C	690.55	670.00	660.22	676.45	689.89
Specimen surface thermocouple temperature rise	ΔTs=Tsm-Tsf	°C	3.25	11.40	16.88	5.75	4.81
Test duration	t	min	30.23	30.00	30.08	30.07	30.07

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END OF TEST CERTIFICATE