CERTIFICATE

Material Fire Test Certificate

IGNL-4081-01-02C I01R00
Date of Test 26/05/2020
ISSUED 12/06/2020
EXPIRY 11/06/2025

AS 1530.1-1994: COMBUSTIBILITY TEST FOR MATERIALS

SPONSOR
Yuanda Australia Pty Ltd
Unit 503, 447 Kent Street
Sydney NSW 2000

PRESENTED TO
Yuanda Australia Pty Ltd
Unit 503, 447 Kent Street
Sydney NSW 2000

TEST BODY
Ignis Labs Pty Ltd
ABN 36 620 256 617
3 Cooper Place
Queanbeyan NSW 2602
www.ignislabs.com.au
(02) 6111 2909
Test body is the test location

Specimen Identification
Aluminium Alloy 6061

Specimen Description
The sponsor described the tested specimen as:
Anodised AA25 aluminium alloy with a nominal mass per unit area of 8.1kg/m² and a nominal thickness of 3mm. The colour of the specimen is silver and the end use being multiple purpose in building façade.

Test Method
One (1) specimen was tested in accordance with Australian Standard 1530 Methods for fire tests on building materials, components and structures, Part 1-1994: Combustibility 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. Appendix A4 of AS 1530.1:1994 permits the use of only the furnace thermocouple for evaluating combustibility of thermally unstable materials and this is considered in this test. The testing of a single specimen is outside the methodology for minimum number of specimens. As a result, this test certificate is based on an indication of performance for a single specimen and shall be

Observations
None of the tested specimens ignited during the test. The tests was ended without the furnace thermocouple reaching equilibrium due to phase change of the specimen as it melted. This presented a risk of dislodging from the specimen holder.

Specimen
The test specimens are cylindrical and each has -

(a). Nominal diameter (mm):	43.65
(b). Nominal height (mm):	50.67
(c). Nominal volume (cm^3):	75.79
(d). Nominal mass (g):	207.36
(e). Colour:	Silver

Results

	Symbol	Arithmetic
Mean furnace thermocouple temperature rise:	ΔTf	2.6 °C
Mean specimen centre thermocouple temperature rise:	ΔTc	2.4 °C
Mean specimen surface thermocouple temperature rise:	ΔTs	15.54 °C
Mean duration of sustained flaming:		0 s
Mean mass loss:		-0.04 %

Combustibility
The specimen is NOT deemed COMBUSTIBLE according to the test criteria specified in clause 3.4 of as 1530.1- 1994.

Test Supervisor
Darren Laker

Technical Lead
Ram Prakash

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Test Calculations

Parameter	Symbol or expression	Unit symbol	Results					Arithmetic (Mean)	Standard Deviation	Uncertainty
			1	2	3	4	5			
Atmospheric temperature	-	0C	19.70					0.00	0.00	
Humidity	-	%RH	62.60					0.00	0.00	
Height	h	mm	50.67					50.67	0.00	
Diameter	d	mm	43.65					43.65	0.00	
Initial specimen volume	V	cm3	75.79					75.79	0.00	
Initial specimen mass	msi	g	207.36					207.36	0.00	
Density	r	kg/m3	2736.12					2736.12	0.00	
Sample holder weight	w	g	0.00					0.00	0.00	
Final specimen mass	msf	g	207.44					207.44	0.00	
Mass loss	Δm=(msi-msf)/msi*100	%	-0.04					-0.04	0.00	
Total duration of sustained flaming	Cumulative total of duration of flaming	s	0.00					0.00	0.00	
Initial furnace thermocouple temperature	Tfi	°C	682.80					682.80	0.00	
Maximum furnace thermocouple temperature	Tfm	°C	718.80					718.80	0.00	
Final furnace thermocouple temperature	Tff	°C	716.20					716.20	0.00	
Furnace thermocouple temperature rise	ΔTf=Tfm-Tff	°C	2.60					2.60	0.00	
Maximum specimen centre thermocouple temperature	Tcm	°C	649.80					649.80	0.00	
Final specimen centre thermocouple temperature	Tcf	°C	647.40					647.40	0.00	
Specimen centre thermocouple temperature rise	ΔTc=Tcm-Tcf	°C	2.40					2.40	0.00	
Maximum specimen surface thermocouple temperature	Tsm	°C	695.00					695.00	0.00	
Final specimen surface thermocouple temperature	Tsf	°C	679.46					679.46	0.00	
Specimen surface thermocouple temperature rise	ΔTs=Tsm-Tsf	°C	15.54					15.54	0.00	
Test duration	t	min	30.75					30.75	0.00	