CERTIFICATE

Material Fire Test Certificate

IGNL-7310-01-01C I01R00

DATE OF TEST	14/11/2023 15/11/2023
ISSUE DATE	07/12/2023
EXPIRY DATE	06/12/2028

AS 1530.1:1994
Combustibility test for materials

SPONSOR
Mineral Fox Pty Ltd
Unit 10, 2 Junction Drive
Coolum Beach, QLD 4573

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

IGNIS LABS PTY LTD
ignis labs
MATERIAL FIRE TESTING
Certificate
ABN 36 620 256 617

Specimen Name

1B12A Plaster

Specimen Description

The sponsor provided a description of the specimens as decorative dry plaster, composed of gypsum, lime, and sand. The material exhibits a natural off-white colour.
The received specimens are in the form of dry plaster columns with a nominal density of 1.13 g/cm³. The specimens appear white, and their specific end use is currently unknown.
Ignis Labs was not responsible for the sampling stage. All specimens were sampled and fabricated 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):	43.93
(b)	Nominal height (mm):	51.24
(c)	Nominal volume (cm³)	77.61
(d)	Nominal Mass (g):	87.47
(e)	Colour:	White

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 the specimens exhibited similar behaviour, and none ignited during the test. Specimens 1, 2, and 3 tests ended at 60 minutes without reaching equilibrium.

Results

The specimen achieved the following results:

	Symbol	Arithmetic
Mean furnace thermocouple temperature rise:	ΔTf	1.19 °C
Mean specimen centre thermocouple temperature rise:	ΔTc	0.13 °C
Mean specimen surface thermocouple temperature rise:	ΔTs	0.29 °C
Mean duration of sustained flaming:		0 s
Mean mass loss:		16.75 %

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

IAS ACCREDITED Testing Laboratory TL-1162

Test Supervisor
Darren Laker

Technical Lead
Jessica Ying

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	21.10	21.10	21.10	21.10	21.10
Humidity	-	%RH	48.90	42.10	42.10	42.10	61.00
Height	h	mm	51.33	51.53	50.88	52.50	49.97
Diameter	d	mm	43.95	43.71	43.86	43.82	44.29
Initial specimen volume	V	cm^3	77.83	77.28	76.83	79.14	76.95
Initial specimen mass	msi	g	86.28	88.90	89.32	87.63	85.23
Density	r	kg/m^3	1108.57	1150.36	1162.57	1107.28	1107.60
Sample holder weight	w	g	14.87	14.81	15.01	15.37	15.22
Final specimen mass	msf	g	71.56	73.49	74.18	71.71	73.08
Mass loss	Δm=(msi-msf)/msi*100	%	17.06	17.33	16.95	18.17	14.26
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	745.57	751.77	751.67	752.17	748.37
Maximum furnace thermocouple temperature	Tfm	°C	790.17	801.37	794.87	761.47	785.47
Final furnace thermocouple temperature	Tff	°C	789.10	799.80	793.10	760.50	784.90
Furnace thermocouple temperature rise	ΔTf=Tfm-Tff	°C	1.07	1.57	1.77	0.97	0.57
Maximum specimen centre thermocouple temperature	Tcm	°C	725.67	729.17	732.87	704.37	714.37
Final specimen centre thermocouple temperature	Tcf	°C	725.60	729.10	732.80	704.00	714.30
Specimen centre thermocouple temperature rise	ΔTc=Tcm-Tcf	°C	0.07	0.07	0.07	0.37	0.07
Maximum specimen surface thermocouple temperature	Tsm	°C	808.77	812.17	805.97	776.57	805.07
Final specimen surface thermocouple temperature	Tsf	°C	808.60	811.90	805.20	776.40	805.00
Specimen surface thermocouple temperature rise	ΔTs=Tsm-Tsf	°C	0.17	0.27	0.77	0.17	0.07
Test duration	t	min	60.00	60.00	55.00	55.00	60.00

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END OF TEST CERTIFICATE