

# CERTIFICATE

## Material Fire Test Certificate

IGNL-5052-01C I01 R00

DATE OF TEST 07.04.2021  
 ISSUE DATE 30.04.2021  
 EXPIRY DATE 29.04.2026

AS 1530.1:1994  
 Combustibility test for materials

### SPONSOR

**Bamora Holdings Pty Ltd**  
 215 McLachlan Street  
 Orange, NSW 2800

### TEST BODY

**Ignis Labs Pty Ltd**  
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*Test body is the test location*



### Specimen Identification

Glass Reinforced Concrete Construction - Factory 1

### Specimen Description

The sponsor described the test specimens as:

Reinforced concrete garden pots and planters. It is composed of one or more layers of fibreglass mesh embedded in a clay and magnesium oxide-based concrete. It has a nominal thickness of 3mm except at rims, ribs, and corners and is limestone yellow in colour. Its end use is as garden pots and planters.

The test specimens are cylindrical, and each has:

(a) Nominal diameter (mm):	44.32
(b) Nominal height (mm):	50.05
(c) Nominal volume (cm <sup>3</sup> ):	77.16
(d) Nominal Mass (g):	112.37
(e) Colour:	Pale yellow

### 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.

AS 1530.1:1994 Clause 1.4 details that the test method is not applicable to products which are coated, faced or laminated. In such cases the test may be carried out separately on individual materials. The specimens composed of multilayers of fibreglass mesh embedded in concrete. The inclusion of the mesh deviates from the test method resulting in the fibreglass being coated by the render.

### Observations

All the specimens exhibited similar behaviour, and none ignited during the test. The specimen centre temperature spiked significantly during the test, but specimen surface and furnace temperatures remained steady. Significant mass loss was observed in all the tested specimens.

All the tests were stopped at 60 min, at which the temperature equilibrium was not achieved.

### Results

The specimen achieved the following results:

	Symbol	Arithmetic
Mean furnace thermocouple temperature rise:	$\Delta T_f$	0.97 °C
Mean specimen centre thermocouple temperature rise:	$\Delta T_c$	86.31 °C
Mean specimen surface thermocouple temperature rise:	$\Delta T_s$	0.21 °C
Mean duration of sustained flaming:		0 s
Mean mass loss:		36.54 %

### 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**  
 Ram Prakash

Version: IGNL-QF-031-Issue 03 Revision 01

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	21.00	22.40	20.80	21.70	22.20
Humidity	-	%RH	65.00	55.20	61.70	63.00	61.50
Height	h	mm	49.07	52.70	50.11	51.90	50.38
Diameter	d	mm	44.24	44.15	43.88	43.71	43.64
Initial specimen volume	v	cm <sup>3</sup>	75.39	80.64	75.74	77.84	75.32
Initial specimen mass	msi	g	111.21	115.08	111.76	115.55	108.23
Density	r	kg/m <sup>3</sup>	1475.17	1427.15	1475.53	1484.51	1437.03
Sample holder weight	w	g	15.90	15.90	15.78	15.13	15.89
Final specimen mass	msf	g	70.90	73.51	70.52	72.92	68.70
Mass loss	$\Delta m = (msi - msf) / msi * 100$	%	36.25	36.12	36.90	36.89	36.53
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	743.10	752.50	751.40	749.90	749.60
Maximum furnace thermocouple temperature	Tfm	°C	761.90	766.10	764.00	767.70	764.10
Final furnace thermocouple temperature	Tff	°C	760.99	765.33	762.26	767.01	763.36
Furnace thermocouple temperature rise	$\Delta T_f = T_{fm} - T_{ff}$	°C	0.91	0.77	1.74	0.69	0.74
Maximum specimen centre thermocouple temperature	Tcm	°C	831.80	867.60	840.90	885.90	851.60
Final specimen centre thermocouple temperature	Tcf	°C	762.82	767.85	768.01	781.04	766.54
Specimen centre thermocouple temperature rise	$\Delta T_c = T_{cm} - T_{cf}$	°C	68.98	99.75	72.89	104.86	85.06
Maximum specimen surface thermocouple temperature	Tsm	°C	800.60	806.90	807.30	815.90	806.50
Final specimen surface thermocouple temperature	Tsf	°C	800.43	806.56	807.10	815.73	806.31
Specimen surface thermocouple temperature rise	$\Delta T_s = T_{sm} - T_{sf}$	°C	0.17	0.34	0.20	0.17	0.19
Test duration	t	min	60.00	60.00	60.00	60.00	60.00

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END OF TEST CERTIFICATE