

Certificate of Test

QUOTE No.: NC8435

REPORT No.: FNC12672

COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994

SPONSOR: Quatro Design Pty Ltd
6 Kay Street
MURWILLUMBAH NSW 2284
AUSTRALIA

DESCRIPTION OF TEST SAMPLE: The sponsor described the tested specimen as a glass fibre reinforced cement (GRC) material comprised of cement, sand, metakaolin, Xypex waterproofing, magnesium aluminium silicate, pozzolanic ash, glass roving and water.

Nominal thickness: 50 mm
Nominal density: 2200 kg/m³
Colour: black

TEST PROCEDURE: Five (5) samples were tested in accordance with Australian Standard 1530 Methods for fire tests on building materials, components and structures, Part 1- 1994: Combustibility Test for Materials.

An alternative suitable insulating material was used to fill the annular space between the furnace tubes, as specified in Clause 4.2 of ISO 1182:2010.

RESULTS: The following calculated results were obtained, refer also to Summary of measurements:

Arithmetic mean	$= \frac{\Sigma \text{results}}{5}$
Mean furnace thermocouple temperature rise (°C)	0.76
Mean specimen centre thermocouple temperature rise (°C)	6.92
Mean specimen surface thermocouple temperature rise (°C)	0.43
Mean duration of sustained flaming (s)	0
Mean mass loss (%)	9.59

DESIGNATION: The material is NOT deemed combustible according to the test criteria specified in Clause 3.4 of AS 1530.1-1994.

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.

DATE OF TEST: 4 December 2020

Issued on the 1st day of February 2021 without alterations or additions.



Faustin Molina
Testing Officer



Stephen Smith
Team Leader, Reaction to Fire & Façade Fire Laboratory

End of Report

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NATA Accredited Laboratory

Number: 165

Corporate Site No 3625

Accredited for compliance with ISO/IEC 17025 - Testing.

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SUMMARY OF MEASUREMENTS AND OBSERVATIONS OF SAMPLES UNDER TEST C12672

Parameters	Symbol or expression	Unit symbol	Sample Number				
			1	2	3	4	5
Initial specimen mass	m_{si}	g	132	136	139	137	139
Final specimen mass	m_{sf}	g	120	124	126	124	125
Mass loss	$\Delta m = \frac{M_{si} - M_{sf}}{M_{si}} \times 100$	%	10	9	9	9	10
Total duration of sustained flaming	Cumulative total of duration of flaming*	s	0	0	0	0	0
Initial furnace thermocouple temperature	T_{fi}	°C	749	746	747	751	752
Maximum furnace thermocouple temperature	T_{fm}	°C	765	763	763	773	780
Final furnace thermocouple temperature	T_{ff}	°C	764	762	762	772	780
Furnace thermocouple temperature rise	$\Delta T_f = T_{fm} - T_{ff}$	°C	1	1	1	1	0
Maximum specimen centre thermocouple temperature	T_{cm}	°C	751	748	750	757	757
Final specimen centre thermocouple temperature	T_{cf}	°C	742	739	742	749	756
Specimen centre thermocouple temperature rise	$\Delta T_c = T_{cm} - T_{cf}$	°C	9	9	8	8	1
Maximum specimen surface thermocouple temperature	T_{cm}	°C	762	765	769	774	779
Final specimen surface thermocouple temperature	T_{sf}	°C	762	764	768	774	778
Specimen surface thermocouple temperature rise	$\Delta T_s = T_{cm} - T_{sf}$	°C	0	1	1	0	1
Test duration	-	min	60	60	60	60	85

- Any individual duration flaming less than 5 seconds was discarded

End of Test Certificate

