

Certificate of Test

QUOTE No.: NC8297

REPORT No.: FNC12581

COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994

TRADE NAME: Frontek

SPONSOR: Frontek Australia Pty Ltd
Suite 1.03A, 1753 Botany Road
BANKSMEADOW NSW 2019
AUSTRALIA

DESCRIPTION OF TEST SAMPLE:

The sponsor described the tested specimen as a ceramic material comprised of illite and kaolinite.

Nominal thickness: 10 mm (loose laid to form 50 mm for the test)
Nominal density: 2300 kg/m³ (measured)
Colour: beige

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)	0.66
Mean specimen centre thermocouple temperature rise (°C)	0.22
Mean specimen surface thermocouple temperature rise (°C)	0.16
Mean duration of sustained flaming (s)	0
Mean mass loss (%)	0.02

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: 29 April 2020

Issued on the 25th day of May 2020 without alterations or additions.



Faustin Molina
Testing Officer



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

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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 C12581

Parameters	Symbol or expression	Unit symbol	Sample Number				
			1	2	3	4	5
Initial specimen mass	m_{si}	g	179.17	179.26	180.17	179.88	177.85
Final specimen mass	m_{sf}	g	179.10	179.16	180.15	179.86	177.85
Mass loss	$\Delta m = \frac{M_{si} - M_{sf}}{M_{si}} \times 100$	%	0.04	0.06	0.01	0.01	0.00
Total duration of sustained flaming	Cumulative total of duration of flaming*	s	0	0	0	0	0
Initial furnace thermocouple temperature	T_{fi}	°C	745	752	751	749	751
Maximum furnace thermocouple temperature	T_{fm}	°C	781	775	782	769	785
Final furnace thermocouple temperature	T_{ff}	°C	780	775	782	768	784
Furnace thermocouple temperature rise	$\Delta T_f = T_{fm} - T_{ff}$	°C	1	0	0	1	1
Maximum specimen centre thermocouple temperature	T_{cm}	°C	782	770	776	771	776
Final specimen centre thermocouple temperature	T_{cf}	°C	781	770	776	771	776
Specimen centre thermocouple temperature rise	$\Delta T_c = T_{cm} - T_{cf}$	°C	1	0	0	0	0
Maximum specimen surface thermocouple temperature	T_{cm}	°C	804	793	793	794	803
Final specimen surface thermocouple temperature	T_{sf}	°C	804	793	792	794	803
Specimen surface thermocouple temperature rise	$\Delta T_s = T_{cm} - T_{sf}$	°C	0	0	1	0	0
Test duration	-	min	90	75	75	70	80

- Any individual duration flaming less than 5 seconds was discarded

End of Test Certificate