

Certificate of Test

QUOTE No.: NC8480

REPORT No.: FNC12704

COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994

SPONSOR: Alutile International Pty Ltd
85 – 89 Asquith Street
SILVERWATER NSW 2128
AUSTRALIA

DESCRIPTION OF TEST SAMPLE: The sponsor described the tested specimen as an aluminium alloy 1100 H18 material representative of the core aluminium component used in the Alutile 3A Plus Aluminium Panel.

Nominal thickness: 0.5 mm (loose laid to form 50 mm for the test)
Nominal mass: 2710 kg/m³
Colour: silver

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) | 8.58 |
| Mean specimen centre thermocouple temperature rise (°C) | 8.17 |
| Mean specimen surface thermocouple temperature rise (°C) | 9.31 |
| Mean duration of sustained flaming (s) | 0 |
| Mean mass loss (%) | 0.12 |

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: 10 February 2021

Issued on the 29th day of March 2021 without alterations or additions.



Stephen Smith
Testing Officer



Brett Roddy
Group Leader, Fire Testing and Assessments

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 C12704

| Parameters | Symbol or expression | Unit symbol | Sample Number | | | | |
|---|--|-------------|---------------|--------|--------|--------|--------|
| | | | 1 | 2 | 3 | 4 | 5 |
| Initial specimen mass | m_{si} | g | 145.90 | 145.81 | 145.57 | 145.71 | 144.63 |
| Final specimen mass | m_{sf} | g | 145.78 | 145.77 | 145.54 | 145.59 | 144.09 |
| Mass loss | $\Delta m = \frac{M_{si} - M_{sf}}{M_{si}} \times 100$ | % | 0.08 | 0.03 | 0.02 | 0.08 | 0.37 |
| 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 | T_{fi} | °C | 745 | 750 | 751 | 751 | 750 |
| Maximum furnace thermocouple temperature | T_{fm} | °C | 780 | 785 | 778 | 786 | 789 |
| Final furnace thermocouple temperature | T_{ff} | °C | 772 | 774 | 769 | 777 | 782 |
| Furnace thermocouple temperature rise | $\Delta T_f = T_{fm} - T_{ff}$ | °C | 8 | 11 | 9 | 9 | 7 |
| Maximum specimen centre thermocouple temperature | T_{cm} | °C | 729 | 718 | 718 | 723 | 729 |
| Final specimen centre thermocouple temperature | T_{cf} | °C | 723 | 711 | 710 | 716 | 717 |
| Specimen centre thermocouple temperature rise | $\Delta T_c = T_{cm} - T_{cf}$ | °C | 6 | 7 | 8 | 8 | 12 |
| Maximum specimen surface thermocouple temperature | T_{cm} | °C | 761 | 769 | 762 | 765 | 776 |
| Final specimen surface thermocouple temperature | T_{sf} | °C | 756 | 757 | 754 | 755 | 764 |
| Specimen surface thermocouple temperature rise | $\Delta T_s = T_{cm} - T_{sf}$ | °C | 5 | 12 | 8 | 10 | 12 |
| Test duration | - | min | 95 | 100 | 90 | 90 | 130 |

- Any individual duration flaming less than 5 seconds was discarded

End of Test Certificate

