Certificate of Test

QUOTE No.: NC8169 **REPORT No.: FNC12386**

COMBUSTIBILITY TEST FOR MATERIALS IN ACCORDANCE WITH AS 1530.1-1994

TRADE NAME: Aluminium Samples

SPONSOR: Ausrise Aluminium Pty Limited
6/5 Clerke Place
KURNELL NSW 2231
AUSTRALIA

DESCRIPTION OF TEST SAMPLE: The sponsor described the tested specimen as mill finished aluminium discs.

Nominal thickness: 3 mm (loose laid to form 50 mm required for the test)
Nominal density: 2700 kg/m^3
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	$= \frac{\Sigma\, results}{5}$
Mean furnace thermocouple temperature rise **(°C)**	3.84
Mean specimen centre thermocouple temperature rise **(°C)**	8.69
Mean specimen surface thermocouple temperature rise **(°C)**	9.84
Mean duration of sustained flaming (s)	0
Mean mass loss (%)	0.09

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: 22 May 2019

Issued on the 31st day of May 2019 without alterations or additions.

Faustin Molina
Testing Officer

Brett Roddy
Team Leader, Fire Assessments

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SUMMARY OF MEASUREMENTS AND OBSERVATIONS OF SAMPLES UNDER TEST FNC12386

Parameters	Symbol or expression	Unit symbol	Sample Number				
			1	2	3	4	5
Initial specimen mass	m_{si}	g	200.8	200.5	200.4	200.8	199.4
Final specimen mass	m_{sf}	g	200.8	200.2	200.1	200.5	199.4
Mass loss	$\Delta m = \frac{Msi - Msf}{Msi} \times 100$	%	0.0	0.2	0.1	0.2	0.0
Total duration of sustained flaming	Cumulative total of duration of flaming*	s	0	0	0	0	0
Initial furnace thermocouple temperature	T_{fi}	°C	750	751	747	751	747
Maximum furnace thermocouple temperature	T_{fm}	°C	792	801	797	800	800
Final furnace thermocouple temperature	T_{ff}	°C	788	797.85	794	794	797
Furnace thermocouple temperature rise	$\Delta Tf = Tfm - Tff$	°C	4	3	3	6	3
Maximum specimen centre thermocouple temperature	T_{cm}	°C	718	721	719	743	743
Final specimen centre thermocouple temperature	T_{cf}	°C	707	714	712	733	735
Specimen centre thermocouple temperature rise	$\Delta Tc = Tcm - Tcf$	°C	11	7	7	10	8
Maximum specimen surface thermocouple temperature	T_{cm}	°C	775	789	780	790	786
Final specimen surface thermocouple temperature	T_{sf}	°C	761	782	767	785	777
Specimen surface thermocouple temperature rise	$\Delta Ts = Tcm - Tsf$	°C	14	7	13	5	9
Test duration	-	min	85	125	120	150	90

* Any individual duration flaming less than 5 seconds was discarded

End of Test Certificate

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