

# AWTA PRODUCT TESTING

Australian Wool Testing Authority Ltd - trading as AWTA Product Testing  
A.B.N. 43 006 014 106  
1st Floor, 191 Racecourse Road, Flemington, Victoria 3031  
P.O. Box 240, North Melbourne, Victoria 3051  
Phone (03) 9371 2400 Fax (03) 9371 2499

## TEST REPORT

CLIENT : ALUCOIL S.A  
POL.IND DE BAYAS.C/-IRCIO.PARC:R72-R77  
09200 MIRANDA DE EBRO  
(BURGOS)  
SPAIN

TEST NUMBER : 7-589763-CO  
ISSUE DATE : 15/03/2013  
PRINT DATE : 15/03/2013

SAMPLE DESCRIPTION Clients Ref: "Larcore"  
Composite sandwich panel  
Colour: Silver  
Approximate Thickness: 14mm  
Approximate Mass: 4.7 kg/m<sup>2</sup>  
End Use: Architectural Cladding

THESE RESULTS MUST BE CONSIDERED IN CONJUNCTION  
WITH THE COMMENTS ON THE FOLLOWING PAGE(S)

Material Specification provided by client:  
Nominal Composition: Aluminium, Magnesium, Manganese, Aluminium 3003

AS/NZS 1530.3 - 1999 Simultaneous determination of Ignitability, Flame  
Propagation, Heat Release and Smoke Release

RESULTS:

Face tested: Face

Date tested: 14/3/2013

	Mean	min	Standard Error
Ignition time	Nil	min	Nil
Flame propagation time	Nil	s	Nil
Heat release integral	Nil	kJ/m <sup>2</sup>	Nil
Smoke release, log d	-1.6573		0.0074
Optical density, d	0.0220	/m	

Number of specimens ignited: 0

Number of specimens tested: 6

REGULATORY INDICES:

Ignitability Index	0	Range 0-20
Spread of Flame Index	0	Range 0-10
Heat Evolved Index	0	Range 0-10
Smoke Developed Index	2	Range 0-10

Comments:

These results only apply to the specimen mounted, as described in this report.

The results of this fire test may be used to directly assess fire hazard, but it should be recognized that a single test method will not provide a full assessment of fire hazard under all fire conditions.

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-Chemical Testing of Textiles & Related Products : Accreditation No. 983  
-Mechanical Testing of Textiles & Related Products : Accreditation No. 985  
-Heat & Temperature Measurement : Accreditation No. 1356

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MANAGING DIRECTOR

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Ignition is initiated by a pilot flame that is held near, but does not touch the specimen. A material that does not ignite during the standard test may ignite if contacted with a pilot flame during the test.

Each test specimen was clamped along all sides.

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(BURGOS)  
SPAIN

TEST NUMBER : 7-589850-CO  
ISSUE DATE : 20/03/2013  
PRINT DATE : 20/03/2013

SAMPLE DESCRIPTION Clients Ref: "Larcove"  
Composite sandwich panel  
Nominal Composition: Aluminium, Magnesium, Manganese,  
Aluminium 3003  
End Use: Architectural Cladding

AS/NZS 3837:1998 Method of Test for Heat and Smoke Release Rates  
for Materials and Products Using an Oxygen  
Consumption Calorimeter

Results:-

	1	Specimen 2	3	Mean	
Average Heat Release Rate	15.8	17.1	16.7	16.5	kW/m2
Average Specific extinction area (according to Specification C1.10 of the Building Code of Australia)	391.6	197.0	248.6	279.1	m2/kg

Test orientation: Horizontal

	1	Specimen 2	3	Mean	
Irradiance	50	50	50	50	kW/m2
Exhaust flow rate	24	24	24	24	l/s
Time to sustained flaming	173	158	145	159	s
Test duration	380	344	364	363	s

Heat release rate curve on the 9 attached sheets which form part of this report

Peak heat release after ignition	74.1	71.9	56.5	67.5	kW/m2
Average heat at 60s	40.9	38.6	32.7	37.4	kW/m2
Release rate at 180s	17.9	17.4	19.9	18.4	kW/m2
After ignition at 300s	N/A	N/A	N/A	N/A	kW/m2
Total heat released	3.3	3.2	3.6	3.4	MJ/m2
Average effective heat of combustion	18.1	17.0	22.1	19.0	MJ/kg

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APPROVED SIGNATORY

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TEST NUMBER : 7-589850-CO  
ISSUE DATE : 20/03/2013  
PRINT DATE : 20/03/2013

Initial thickness	14.0	14.0	14.0	14.0	mm
Initial mass	47.8	47.6	48.1	47.8	g
Mass remaining	45.8	46.0	46.2	46.0	g
Mass percentage pyrolysed	4.2	3.4	4.0	3.8	%
Mass loss	2.0	1.6	1.9	1.8	g
Average rate of mass loss	0.8	1.0	0.8	0.9	g/m2.s

The formulae given in the Building Code of Australia have been shown to give inaccuracies in determination of Group Number for certain materials. Due to this AWTA Product Testing no longer reports Group Numbers. The formulae for calculation of Group Number is available from the website of the Australian Building Codes Board. Group Number calculation based on the results described in this report can be undertaken at the clients discretion

Tests were conducted with a wire grid placed over the sample during testing. This was done to contain intumescent sample within the sample holder.

These test results relate only to the behaviour of the product under the conditions of the test, they are not intended to be the sole criterion for the assessment of performance under real fire conditions

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SPAIN

TEST NUMBER : 7-590201-CO  
ISSUE DATE : 16/04/2013  
PRINT DATE : 16/04/2013

SAMPLE DESCRIPTION Clients Ref: "Aluminium honeycomb Core"  
Nominal Composition: Aluminium 3003  
End Use: Architectural Cladding

AS/NZS 3837:1998 Method of Test for Heat and Smoke Release Rates  
for Materials and Products Using an Oxygen  
Consumption Calorimeter

Results:-

	1	Specimen 2	3	Mean	
Average Heat Release Rate	FTI	FTI	FTI	FTI	kW/m2
Average Specific extinction area (according to Specification C1.10 of the Building Code of Australia)	0.0	0.0	0.0	0	m2/kg

Test orientation: Horizontal

	1	Specimen 2	3	Mean	
Irradiance	50	50	50	50	kW/m2
Exhaust flow rate	24	24	24	24	l/s
Time to sustained flaming	FTI	FTI	FTI	FTI	s
Test duration	600	600	600	600	s
Initial thickness	13.0	13.0	13.0	13.0	mm
Initial mass	314.5	315.1	313.6	314.4	g
Mass remaining	314.5	315.1	313.6	314.4	g
Mass percentage pyrolysed	0.0	0.0	0.0	0.0	%
Mass loss	0.0	0.0	0.0	0.0	g
Average rate of mass loss	0.0	0.0	0.0	0.0	g/m2.s

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FTI = Failed to Ignite

Specimens tested failed to ignite within 10 minutes and testing was ceased as per Section 2.5.2(i)

The test specimen was tested in the unexpanded form

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