

# 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 : ARMSTRONG WORLD INDUSTRIES  
(AUSTRALIA) PTY LTD  
PO BOX 109  
MORDIALLOC VIC 3195

TEST NUMBER : 7-594886-CV  
ISSUE DATE : 27/11/2013  
PRINT DATE : 27/11/2013  
ORDER NUMBER : 109093  
ORDER NUMBER : 109093

SAMPLE DESCRIPTION Clients Ref: "Quantum"  
2.0mm Homogeneous sheet vinyl wall covering  
Nom: PVC 3kg/m2  
End Use: Wall Covering

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

Results:-

	Specimen				
	1	2	3	Mean	
Average Heat Release Rate	44.1	47.5	50.2	47.3	kW/m2
Average Specific extinction area (according to Specification C1.10 of the Building Code of Australia)	224.4	217.9	201.9	214.7	m2/kg

Test orientation: Horizontal

	Specimen				
	1	2	3	Mean	
Irradiance	50	50	50	50	kW/m2
Exhaust flow rate	24	24	24	24	l/s
Time to sustained flaming	19	18	19	19	s
Test duration	864	844	848	852	s

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

Peak heat release after ignition	121.3	115.5	124.9	120.6	kW/m2
Average heat at 60s	86.3	87.7	91.5	88.5	kW/m2
Release rate at 180s	89.5	87.0	94.3	90.3	kW/m2
After ignition at 300s	76.4	73.7	80.6	76.9	kW/m2
Total heat released	37.2	39.2	41.6	39.3	MJ/m2
Average effective heat of combustion	11.2	12.0	12.3	11.8	MJ/kg

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This Laboratory is accredited by the National Association of Testing Authorities, Australia, for:  
-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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APPROVED SIGNATORY

MICHAEL A. JACKSON B.Sc.(Hons)  
MANAGING DIRECTOR

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Initial thickness	8.0	8.0	8.0	8.0	mm
Initial mass	115.3	113.4	114.1	114.3	g
Mass remaining	88.3	86.7	86.5	87.2	g
Mass percentage pyrolysed	23.4	23.5	24.2	23.7	%
Mass loss	27.0	26.7	27.6	27.1	g
Average rate of mass loss	3.9	4.0	4.1	4.0	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

Samples were tested as assembled and supplied by client

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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( END OF REPORT )

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MICHAEL A. JACKSON B.Sc.(Hons)  
MANAGING DIRECTOR

19 Feb 15

### Walling Fire Test – Group Number

AWTA Product Testing provides the following statement with their Walling Fire Test reports:

*The formulae given in the Building Code of Australia have been shown to give inaccuracies in determination of Group Number for certain material. 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 the AWTA Test Report can be undertaken at the client's discretion.*

Armstrong World Industries (Australia) Pty Ltd has taken the fire test data supplied by AWTA Product Testing for this product and obtained the Group Number using the Calculation tool supplied.

The resultant Group Number for this product in accordance with Specification C1.10 section 4 of the Building Code of Australia is:

Test Report No.	Product:	Group Number:	Average Specific Extinction Area:
7-594886-CV	<b>QUANTUM</b>	GROUP 3	Refer attached test report

Yours faithfully,  
**PETER BYRON**

Technical Manager