# **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:

Consolidated Veneers

PO Box 7053

Wetherill Park DC NSW 1851

Test Number :

14-001754

**Issue Date** 

19/12/2014

**Print Date** 

19/12/2014

Sample Description

Clients Ref: "CLEAF 18mm HMR Melamine faced particleboard"

Rigid panel laminated on both faces

Colour: Brown

End Use: Internal wall linings, kitchen cabinetry, commercial furniture

Nominal Composition:

Melamine/particleboard

Nominal Mass per Unit Area/Density:

Approx. 13kg/m2

Nominal Thickness:

18mm

AS/NZS 3837-1998

Method of Test for Heat and Smoke Release Rates for Materials and Products using an Oxygen Consumption Calorimeter

Specimen

	1	2	3	Mean
Average Heat Release Rate	66.4	65.6	61.2	64.4 kW/m²
Average Specific extinction area	12.2	4.3	7.6	8.0 m²/kg

(according to Specification C1.10 of the Building Code of Australia)

Specimen

Test orientation:

Horizontal

		Specimen			
	1	2	3	Mean	
Irradiance	50	50	50	50	kW/m²
Exhaust flow rate	24	24	24	24	L/sec
Time to sustained flaming	58	51	61	57	sec
Test duration	3600	3600	3600	3600	sec
Peak heat release after ignition	172.7	179.1	169.2	173.7	kW/m²
Average heat at 60 s	107.0	82.8	97.9	95.9	kW/m²
Average heat at 180 s	144.7	136.2	142.1	141.0	kW/m²
Average heat at 300 s	149.7	145.8	146.6	147.4	kW/m²
Total heat released	235.6	232.5	216.3	228.1	MJ/m²
Average effective heat of combustion	17.3	16.8	15.6	16.6	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.

- Mechanical Testing of Textiles & Related Products - Heat & Temperature Measurement

Accreditation No. Accreditation No.

985

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## VTA Product Testing

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#### **TEST REPORT**

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Consolidated Veneers

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Test Number :

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19/12/2014

						_
Initial thickness	18.0	18.0	18.0	18.0	mm	
Initial mass	129.4	131.9	131.4	130.9	g	
Mass remaining	17.7	19.1	17.4	18.0	g	
Mass percentage pyrolysed	86.4	85.5	86.8	86.2	%	
Mass loss	111.7	112.8	114.0	112.9	g	
Average rate of mass loss	3.8	3.9	3.9	3.9	g/m².s	

Tests were conducted with a wire grid placed over the sample during testing. This was done to contain intumescing 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 assessment of performance under real fire conditions.

The formulaes 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. The results reported herein shall not be used to derive a Group Number in accordance with the NCC without undertaking validation of the performance that is predicted.

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- Mechanical Testing of Textiles & Related Products - Heat & Temperature Measurement

Accreditation No. Accreditation No. 985



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A. JACKSON B.Sc.(Hons)

## Classification of Fire Performance of Wall and Ceiling Lining Materials

Using the Method of Kokkala, Thomas and Karlsson

Reference: Kokkala, M.A. Thomas, P.H. and Karlsson, B. Rate of Heat Release and Ignitability Indices for Surface Linings. Fire and Materials Vol 17, 209-216 (1993)

Instructions:

User input areas are those shaded in light-blue. Before entering or pasting new data into the two columns, it is best to clear any existing data by clicking on the 'Clear Data' button. If necessary, formatting of the cells can be restored by clicking on the 'Formatting' button. Copy data from column U (time) of the csv file and paste into the time column. Copy data from column I (HRR) of the csv file and paste into the Rate of Heat Release column.

Material Identific	cation/Description:	: 14-001754-A spec1 CLEAF 18mm HMR Particleboard		
Clear Data		Formatting		
INPUT DATA BE	IOW			
Data from AS/NZ		Time to Ignition (sec) =	65.3	
Test Heat Flux =		(200)	00.0	
Time	Rate of Heat Release	Ignitability Index (1/min) =	0.918	
(sec)	(kW/m²)			
0	1.2584	End of Test (sec) =	3600	
5	0	Date (III 4 D. I. I. 1 4 000)		
10 15	1.7505 4.6751	Rate of Heat Release Index (m=0.34) =	27159.5	
20	2.94669	10 minute limit =	6204	
25	1.85337	TO Hilliage IIIIII –	6304	
30	2.37633	Rate of Heat Release Index (m=0.93) =	1843.9	
35	1.00333	1.550 of Float Holodo Hidox (III 0.00)	10-0.9	
40	0.45097	2 minute limit =	2323	
45	2.49859	12 minute limit =	1498	
50	17.4029			
55	31.7767			
60	37.8494	THE BCA CLASSIFICATION GROUP IS:		
65	48.7719			
70	67.2616		*	
75	85.6265		Group 3	
80	99.6495		*	
85	111.379		*	
90	117.573	8	-	
95	124.991	This method assumes that no materials lead to flashover		
100	129.338	after 12 and before 20 minutes.		
105	135.747	Materials that are predicted not to flashover		
110	135.158	within 12 minutes are put into Group 1.		
115	138.391			
120	141.766			
125	142.08			
130 135	147.606 151.339	v: (w)		
140	153.318			
145	155.923.			
150	159.521	N.	- 5	
155	160.303	a a		
160	161.786			
165	161.912			
170	165.135			

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Instructions:

User input areas are those shaded in light-blue. Before entering or pasting new data into the two columns, it is best to clear any existing data by clicking on the 'Clear Data' button. If necessary, formatting of the cells can be restored by clicking on the 'Formatting' button. Copy data from column U (time) of the csv file and paste into the time column. Copy data from column I (HRR) of the csv file and paste into the Rate of Heat Release column.

1	r -		
Clear Data	_	Formatting	
NPUT DATA BE	LOW		
Data from AS/N	ZS 3837:1998	Time to Ignition (sec) =	68.0
est Heat Flux =	= 50 kW/m²		
Time	Rate of Heat Release	Ignitability Index (1/min) =	0.882
(sec)	(kW/m²)		
0	0.254161	End of Test (sec) =	360
5	0		
10	0.0285213	Rate of Heat Release Index (m=0.34) =	26706.
15	0.0880714		
20	0	10 minute limit =	632
25	0		
30	0	Rate of Heat Release Index (m=0.93) =	1798.
35	0.0460877		
40	0	2 minute limit =	232
45	2.15042	12 minute limit =	150
50	10.4115		
55	19.9937		
60	27.9309	THE BCA CLASSIFICATION GROUP IS:	
65	43.3386		
70	54.4426		*
75	70.2668		Group 3
80	81.9921		*
85	88.2399		*
90	97.6873	9	
95	104.356	This method assumes that no materials lead to flashover	
100	111.071	after 12 and before 20 minutes.	
105	116.745	Materials that are predicted not to flashover	
110	123.081	within 12 minutes are put into Group 1.	
115	128.546		
120	133.896		
125	139.183		
130	141.826		
* 135	146:343	*	300
140	151.778		
145.	151.761	2 8	
150	157.919		
155	159.02		
160	160.136		
165	163.254		
170	164.962		

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Instructions:

User input areas are those shaded in light-blue. Before entering or pasting new data into the two columns, it is best to clear any existing data by clicking on the 'Clear Data' button. If necessary, formatting of the cells can be restored by clicking on the 'Formatting' button. Copy data from column U (time) of the csv file and paste into the time column. Copy data from column I (HRR) of the csv file and paste into the Rate of Heat Release column.

Material Identifi	ication/Description:	14-001754-A spec3 CLEAF 18mm HMR Particleboard		
Clear Data	] .	Formatting		
INPUT DATA BE	ELOW	<del></del>		
Data from AS/N		Time to Ignition (sec) =	75.6	
Test Heat Flux				
Time	Rate of Heat Release	Ignitability Index (1/min) =	0.793	
(sec)	(kW/m²)		2010	
0 5	0.587374 0	End of Test (sec) =	3610	
10	0.301716	Rate of Heat Release Index (m=0.34) =	25541.5	
15	0.001710	Trate of Fleat Release flidex (III 0.04)	20041.0	
20	0	10 minute limit =	6372	
25	0			
30	0	Rate of Heat Release Index (m=0.93) =	1828.5	
35	0			
40	0	2 minute limit =	2344	
45	0	12 minute limit =	1519	
50	0			
55	0			
60	2.18997	THE BCA CLASSIFICATION GROUP IS:		
65	20.1843			
70	34.1472		*	
75	47.0047		Group 3	
80	71.058		*	
85	87.3518		*	
90	101.562	OK NO.	- 2	
95	108.83	This method assumes that no materials lead to flashover		
100	118.036	after 12 and before 20 minutes.		
105	125.051	Materials that are predicted not to flashover		
110	127.975	within 12 minutes are put into Group 1.		
115	134.386			
120	137.877			
125	143.97			
130	149.885			
135	153.635			
140	155.586			
.145	157.455		(8)	
150 155	161.387 162.679	5		
160	163.051	· · · · · · · · · · · · · · · · · · ·	,-	
165	166.466			
170	167.2			
170	107.2			