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 : Nover & Co. Pty Ltd
19 Wonderland Drive
Eastern Creek NSW 2766

Test Number : 16-001129
Issue Date : 10/03/2016
Print Date : 15/03/2016

Sample Description

Clients Ref : "Fenix NTM"
Laminate panel
Colour : Black
End Use : Laminate sheeting for Bench, doors, walls
Nominal Composition : Kraft paper impregnated with thermosetting resin
Nominal Mass per Unit Area/Density : > or equal to 1.35g/cm3
Nominal Thickness : 0.9mm

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	46.9	40.4	41.8	43.0	kW/m²
Average Specific extinction area	23.8	17.2	20.3	20.4	m²/kg

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

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	17	17	16	17	sec
Test duration	530	545	615	563	sec

31021 10758

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

APPROVED SIGNATORY

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

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 : Nover & Co. Pty Ltd
19 Wonderland Drive
Eastern Creek NSW 2766

Test Number : 16-001129
Issue Date : 10/03/2016
Print Date : 15/03/2016

Peak heat release after ignition	326.0	342.9	320.2	329.7	kW/m²
Average heat at 60 s	178.0	167.0	176.3	173.8	kW/m²
Average heat at 180 s	85.3	76.6	82.7	81.5	kW/m²
Average heat at 300 s	60.9	53.9	58.4	57.7	kW/m²
Total heat released	24.2	21.4	25.2	23.6	MJ/m²
Average effective heat of combustion	8.9	7.9	9.7	8.8	MJ/kg
Initial thickness	7.0	7.0	7.0	7.0	mm
Initial mass	96.9	93.1	86	92.0	g
Mass remaining	74.6	70.9	64.6	70.0	g
Mass percentage pyrolysed	23.0	23.9	24.9	23.9	%
Mass loss	22.3	22.2	21.4	22.0	g
Average rate of mass loss	5.3	5.1	4.3	4.9	g/m².s

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 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.

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

Samples were loose laid onto a substrate of 6mm thick cement sheeting prior to testing.

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

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

APPROVED SIGNATORY

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

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 Identification/Description: **Fenix NTM 16-001129-A spec1**

Clear Data Formatting

INPUT DATA BELOW Data from AS/NZS 3837:1998 Test Heat Flux = 50 kW/m²	
Time (sec)	**Rate of Heat Release (kW/m²)**
0	0.180245
5	0
10	0
15	0.122916
20	97.5307
25	269.974
30	326.039
35	225.561
40	155.01
45	149.916
50	162.769
55	168.635
60	160.794
65	150.447
70	140.514
75	124.052
80	107.232
85	95.1566
90	84.9551
95	76.689
100	68.9802
105	61.0132
110	52.5618
115	42.3995
120	36.8366
125	31.6336
130	27.7887
135	23.7453
140	23.739
145	24.25
150	24.141
155	23.2134
160	21.3068
165	21.0544
170	20.6761

Time to Ignition (sec) =	17.6
Ignitability Index (1/min) =	3.417
End of Test (sec) =	530
Rate of Heat Release Index (m=0.34) =	6177.6
10 minute limit =	4955
Rate of Heat Release Index (m=0.93) =	1674.4
2 minute limit =	1911
12 minute limit =	1086

THE BCA CLASSIFICATION GROUP IS:

*
Group 3
*
*

This method assumes that no materials lead to flashover after 12 and before 20 minutes. Materials that are predicted not to flashover within 12 minutes are put into Group 1.

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 Identification/Description: **Fenix NTM 16-001129-A spec2**

Clear Data Formatting

INPUT DATA BELOW Data from AS/NZS 3837:1998 Test Heat Flux = 50 kW/m²	
Time	**Rate of Heat Release**
0	0
5	0
10	0
15	0
20	60.5652
25	255.801
30	342.854
35	255.624
40	185.86
45	159.506
50	146.541
55	140.815
60	132.262
65	119.513
70	105.395
75	89.7619
80	79.3326
85	74.5798
90	69.0513
95	62.0254
100	56.1731
105	51.1376
110	40.8947
115	33.2947
120	27.813
125	24.641
130	24.2031
135	19.9605
140	18.6039
145	19.1233
150	19.4215
155	17.5872
160	15.5695
165	16.657
170	18.4406
175	20.027

Time to Ignition (sec) =	19.1
Ignitability Index (1/min) =	3.137
End of Test (sec) =	545
Rate of Heat Release Index (m=0.34) =	5691.7
10 minute limit =	5106
Rate of Heat Release Index (m=0.93) =	1679.7
2 minute limit =	1957
12 minute limit =	1132

THE BCA CLASSIFICATION GROUP IS:

*

Group 3

*

*

This method assumes that no materials lead to flashover after 12 and before 20 minutes. Materials that are predicted not to flashover within 12 minutes are put into Group 1.

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 Identification/Description: **Fenix NTM 16-001129-A spec3**

Clear Data Formatting

INPUT DATA BELOW Data from AS/NZS 3837:1998 Test Heat Flux = 50 kW/m²	
Time (sec)	**Rate of Heat Release (kW/m²)**
0	0
5	0.167692
10	0
15	0
20	138.117
25	309.177
30	320.204
35	211.961
40	155.096
45	150.812
50	156.219
55	162.525
60	156.493
65	139.672
70	126.661
75	110.33
80	94.0699
85	83.9713
90	81.8661
95	67.0057
100	55.8324
105	50.2777
110	44.4578
115	39.8976
120	36.072
125	31.7809
130	28.759
135	24.9083
140	24.3587
145	21.2635
150	22.1058
155	21.0025
160	21.0652
165	21.4344
170	21.3354

Time to Ignition (sec) =	16.8
Ignitability Index (1/min) =	3.569
End of Test (sec) =	615
Rate of Heat Release Index (m=0.34) =	6301.0
10 minute limit =	4873
Rate of Heat Release Index (m=0.93) =	1714.8
2 minute limit =	1886
12 minute limit =	1061

THE BCA CLASSIFICATION GROUP IS:

*
Group 3
*
*

This method assumes that no materials lead to flashover after 12 and before 20 minutes.
Materials that are predicted not to flashover within 12 minutes are put into Group 1.