

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 : The Laminex Group
22 Trewin Street
Wendouree VIC 3355

Test Number : 16-006323
Issue Date : 22/12/2016
Print Date : 31/05/2017
Order Number : 2108

Sample Description Clients Ref : "Laminex ARTouch High Pressure Laminate"
High Pressure Laminate
Sample No. 20020
Nominal Composition : Multiple layers of paper impregnated with phenolic based resin fused together under heat and pressure
Nominal Mass per Unit Area/Density : 1410g/cm³
Nominal Thickness : 0.7mm

ISO 5660.1-2015

Reaction to Fire Tests - Heat Release Smoke Production and Mass Loss Rate Part 1: Heat Release Rate (Cone Calorimeter Method) and Smoke Production Rate (Dynamic Measurement)

| | Specimen | | | Mean | |
|-----------------------------|----------|------|------|------|-------------------|
| | 1 | 2 | 3 | | |
| Average Heat Release Rate | 17.6 | 15.8 | 16.1 | 16.5 | kW/m ² |
| Group Number Classification | 3 | 3 | 3 | | |

(In Accordance with New Zealand Building Code Verification Method C/VM2 Appendix A)

| | 1 | 2 | 3 | Mean | |
|----------------------------------|------|------|------|------|--------------------|
| Average Specific extinction area | 63.4 | 21.7 | 32.3 | 39.1 | m ² /kg |

Test orientation : Horizontal

| | Specimen | | | Mean | |
|---------------------------|----------|------|------|------|-------------------|
| | 1 | 2 | 3 | | |
| Irradiance | 50 | 50 | 50 | 50 | kW/m ² |
| Exhaust flow rate | 24 | 24 | 24 | 24 | L/sec |
| Time to sustained flaming | 14 | 15 | 16 | 15 | sec |
| Test duration | 1814 | 1815 | 1816 | 1815 | sec |

47171

16406

Page 1 of 8

© Australian Wool testing Authority Ltd
Copyright - All Rights Reserved



Accredited for compliance with ISO/IEC 17025
- Chemical Testing
- Mechanical Testing
- Performance & Approvals Testing

: Accreditation No. 983
: Accreditation No. 985
: Accreditation No. 1356



Samples and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. This document shall not be reproduced except in full and shall be rendered void if amended or altered. This document, the names AWTA Product Testing and AWTA Ltd may be used in advertising providing the content and format of the advertisement have been approved by the Managing Director of AWTA Ltd.

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 : The Laminex Group
22 Trewin Street
Wendouree VIC 3355

Test Number : 16-006323
Issue Date : 22/12/2016
Print Date : 31/05/2017
Order Number : 2108

| | | | | | |
|--------------------------------------|-------|-------|-------|-------|---------------------|
| Peak heat release after ignition | 230.9 | 238.2 | 233.5 | 234.2 | kW/m ² |
| Average heat at 60 s | 139.5 | 142.2 | 138.6 | 140.1 | kW/m ² |
| Average heat at 180 s | 67.4 | 66.0 | 64.8 | 66.1 | kW/m ² |
| Average heat at 300 s | 47.6 | 46.9 | 46.3 | 46.9 | kW/m ² |
| Total heat released | 31.6 | 28.5 | 29.0 | 29.7 | MJ/m ² |
| Average effective heat of combustion | 10.9 | 9.4 | 10.3 | 10.2 | MJ/kg |
| Initial thickness | 6.7 | 6.7 | 6.7 | 6.7 | mm |
| Initial mass | 99.6 | 97 | 97.6 | 98.1 | g |
| Mass remaining | 75.7 | 72.4 | 73.0 | 73.7 | g |
| Mass percentage pyrolysed | 24.0 | 25.4 | 25.2 | 24.8 | % |
| Mass loss | 23.9 | 24.6 | 24.6 | 24.4 | g |
| Average rate of mass loss | 1.6 | 1.7 | 1.5 | 1.6 | g/m ² .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.

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 intumescent sample within the sample holder.

Note: All calculations are based on ignition + 30 minutes.

47171

16406

Page 2 of 8

© Australian Wool testing Authority Ltd
Copyright - All Rights Reserved



Accredited for compliance with ISO/IEC 17025
- Chemical Testing
- Mechanical Testing
- Performance & Approvals Testing

: Accreditation No. 983
: Accreditation No. 985
: Accreditation No. 1356



Samples and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. This document shall not be reproduced except in full and shall be rendered void if amended or altered. This document, the names AWTA Product Testing and AWTA Ltd may be used in advertising providing the content and format of the advertisement have been approved by the Managing Director of AWTA Ltd.

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

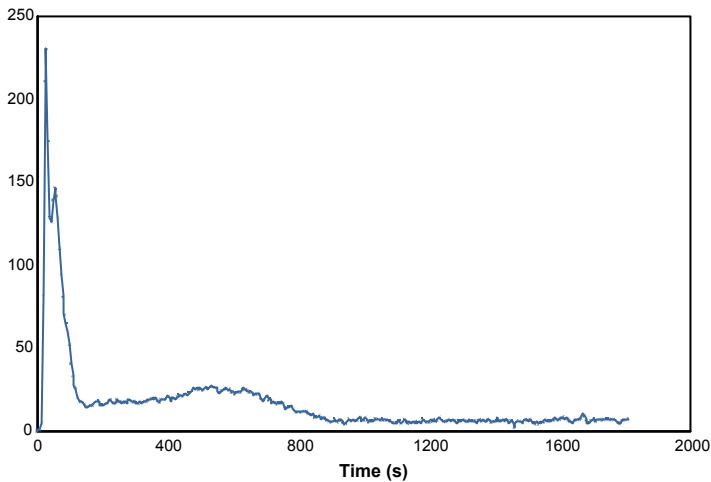
TEST REPORT

Client : The Laminex Group
22 Trewin Street
Wendouree VIC 3355

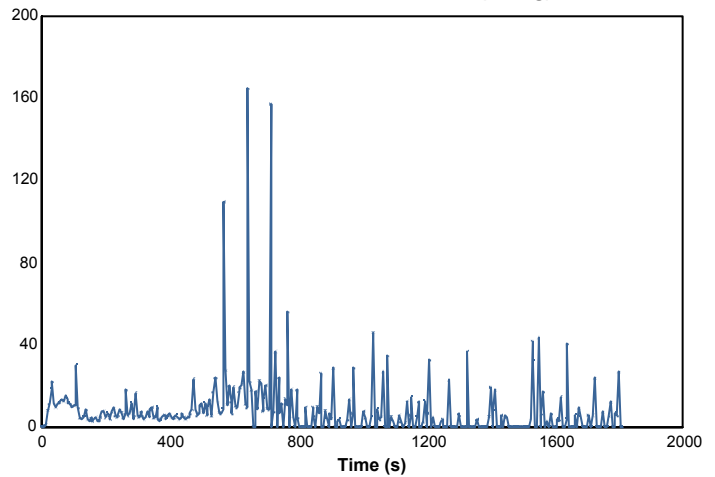
Test Number : 16-006323
Issue Date : 22/12/2016
Print Date : 31/05/2017
Order Number : 2108

Specimen : 1

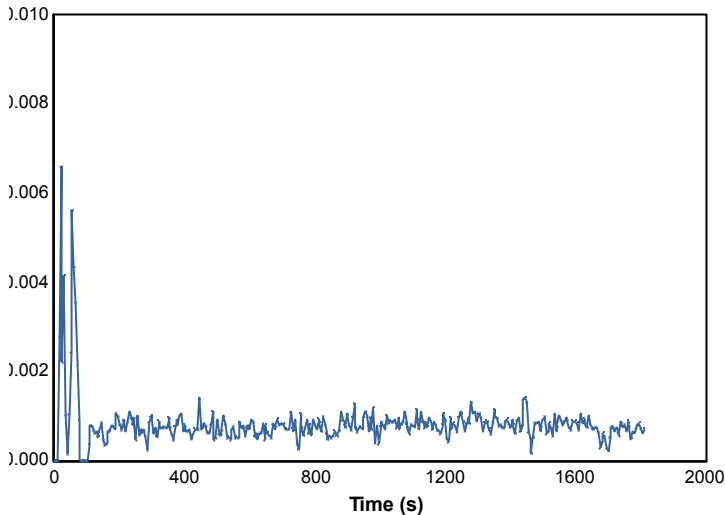
Heat release rate (kW/m²)



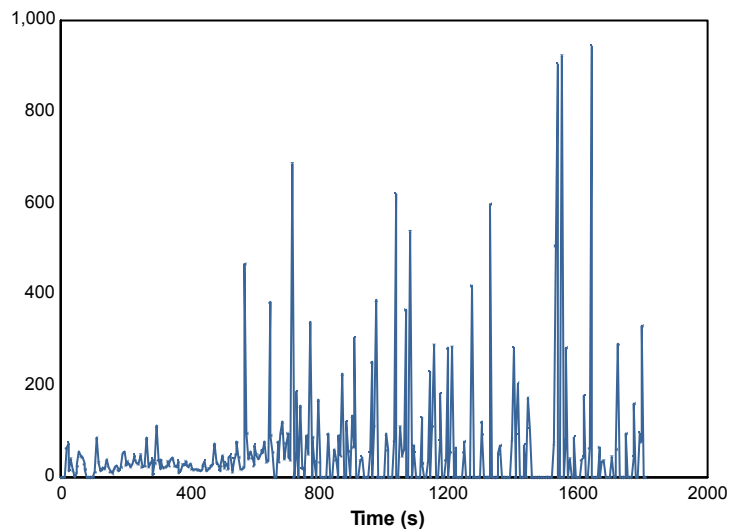
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



47171

16406

Page 3 of 8

© Australian Wool testing Authority Ltd
Copyright - All Rights Reserved



Accredited for compliance with ISO/IEC 17025

- Chemical Testing
- Mechanical Testing
- Performance & Approvals Testing

: Accreditation No. 983
: Accreditation No. 985
: Accreditation No. 1356



Samples and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. This document shall not be reproduced except in full and shall be rendered void if amended or altered. This document, the names AWTA Product Testing and AWTA Ltd may be used in advertising providing the content and format of the advertisement have been approved by the Managing Director of AWTA Ltd.

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

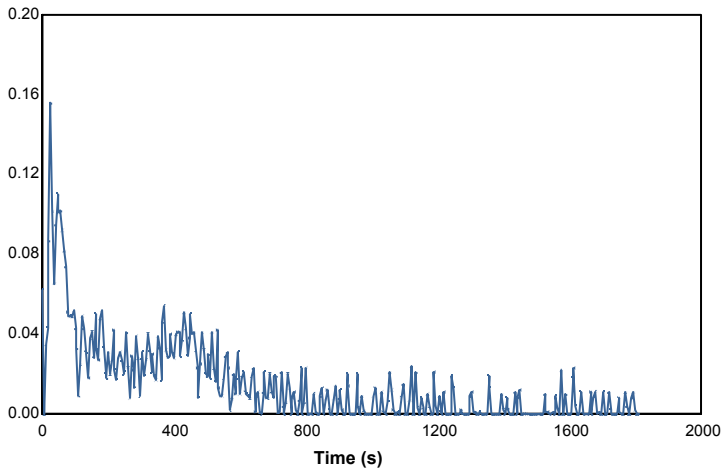
Phone (03) 9371 2400 Fax (03) 9371 2499

TEST REPORT

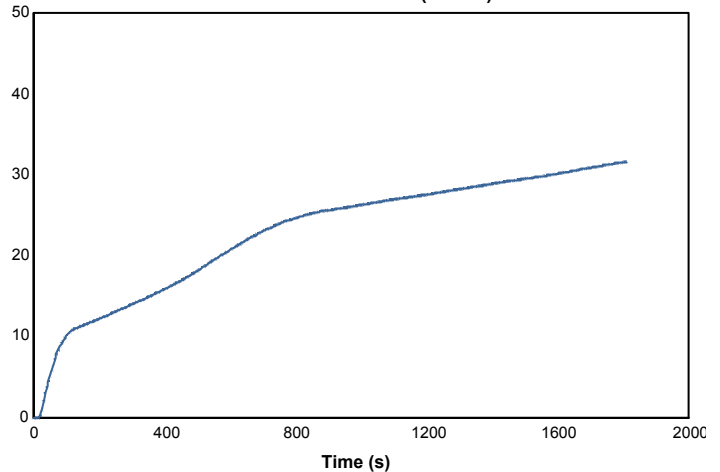
Client : The Laminex Group
22 Trewin Street
Wendouree VIC 3355

Test Number : 16-006323
Issue Date : 22/12/2016
Print Date : 31/05/2017
Order Number : 2108

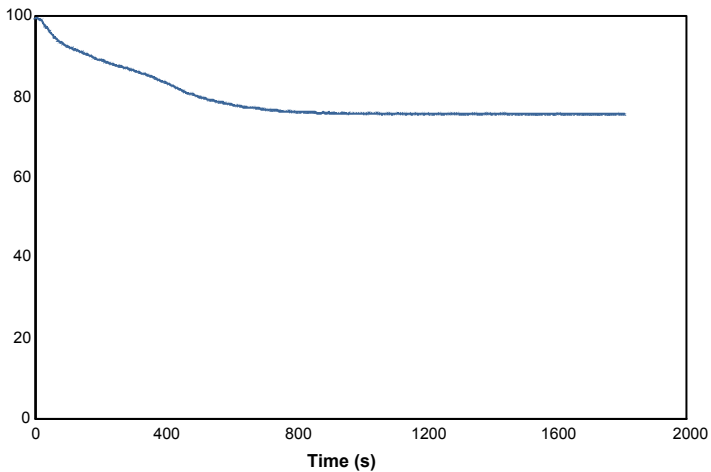
Mass loss rate (g/s)



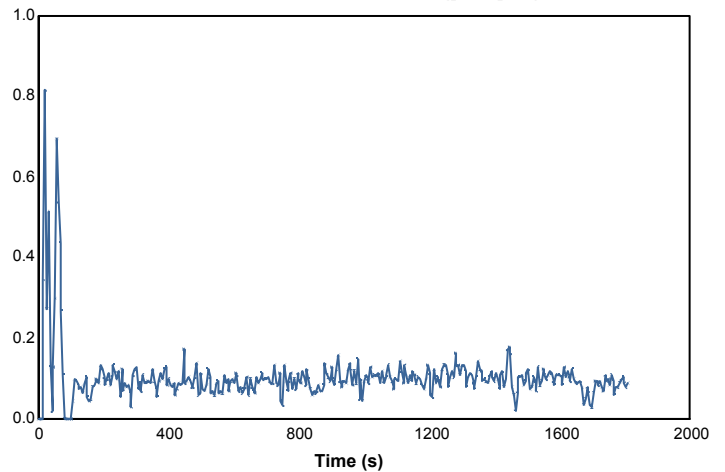
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



47171

16406

Page 4 of 8

© Australian Wool testing Authority Ltd
Copyright - All Rights Reserved



Accredited for compliance with ISO/IEC 17025

- Chemical Testing
- Mechanical Testing
- Performance & Approvals Testing

: Accreditation No. 983
: Accreditation No. 985
: Accreditation No. 1356



Samples and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. This document shall not be reproduced except in full and shall be rendered void if amended or altered. This document, the names AWTA Product Testing and AWTA Ltd may be used in advertising providing the content and format of the advertisement have been approved by the Managing Director of AWTA Ltd.

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

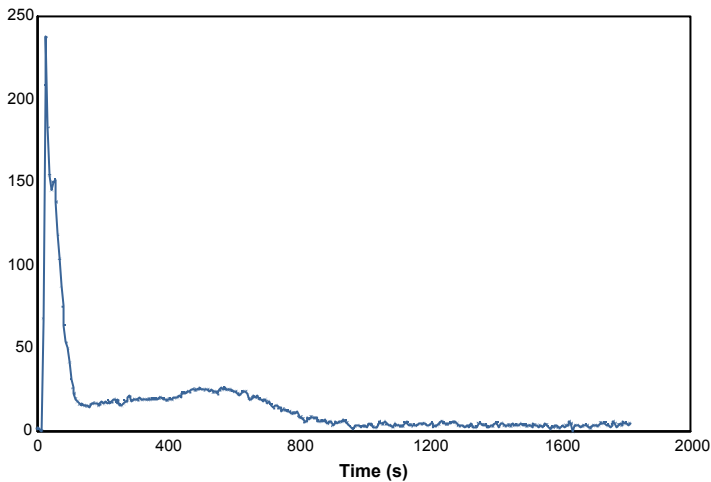
TEST REPORT

Client : The Laminex Group
22 Trewin Street
Wendouree VIC 3355

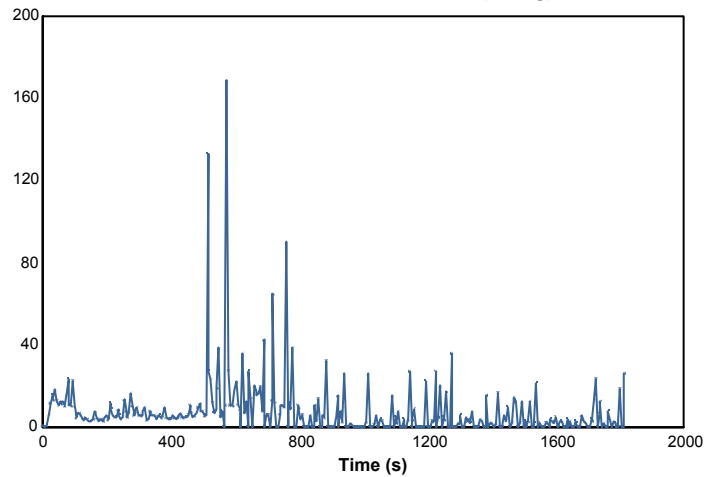
Test Number : 16-006323
Issue Date : 22/12/2016
Print Date : 31/05/2017
Order Number : 2108

Specimen : 2

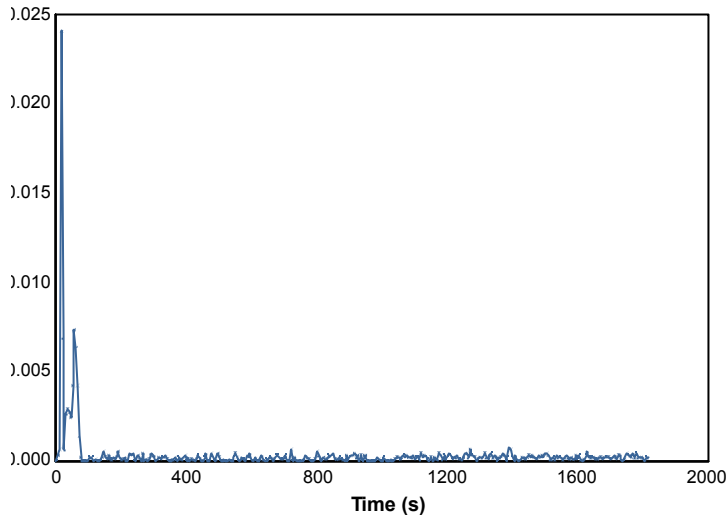
Heat release rate (kW/m²)



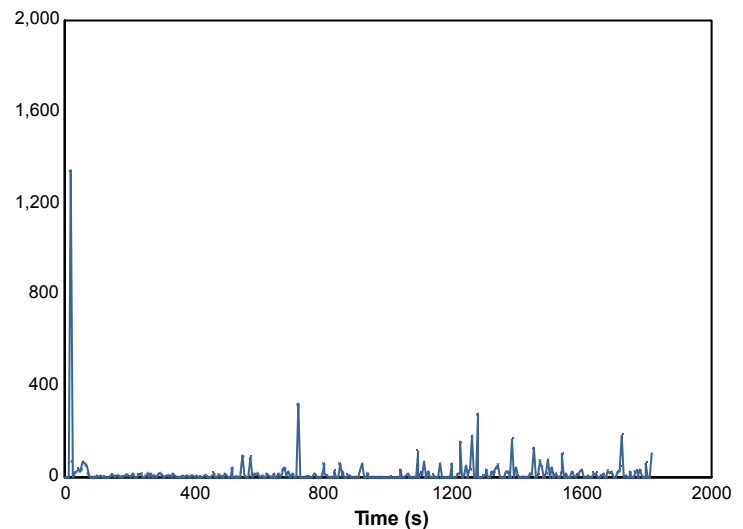
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



47171

16406

Page 5 of 8

© Australian Wool testing Authority Ltd
Copyright - All Rights Reserved



Accredited for compliance with ISO/IEC 17025
- Chemical Testing
- Mechanical Testing
- Performance & Approvals Testing

: Accreditation No. 983
: Accreditation No. 985
: Accreditation No. 1356



Samples and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. This document shall not be reproduced except in full and shall be rendered void if amended or altered. This document, the names AWTA Product Testing and AWTA Ltd may be used in advertising providing the content and format of the advertisement have been approved by the Managing Director of AWTA Ltd.

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

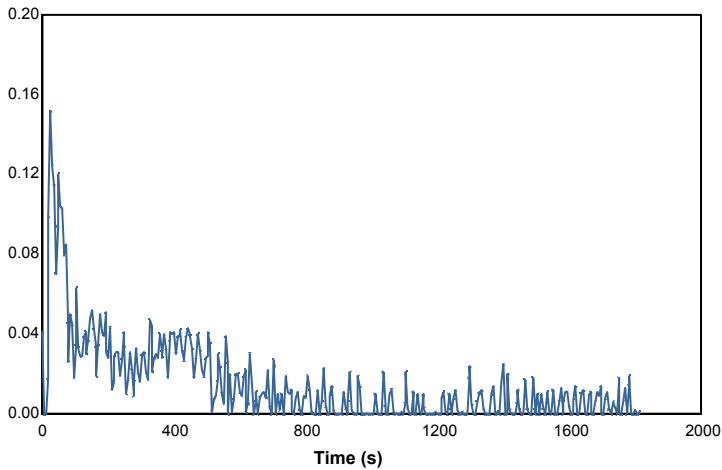
Phone (03) 9371 2400 Fax (03) 9371 2499

TEST REPORT

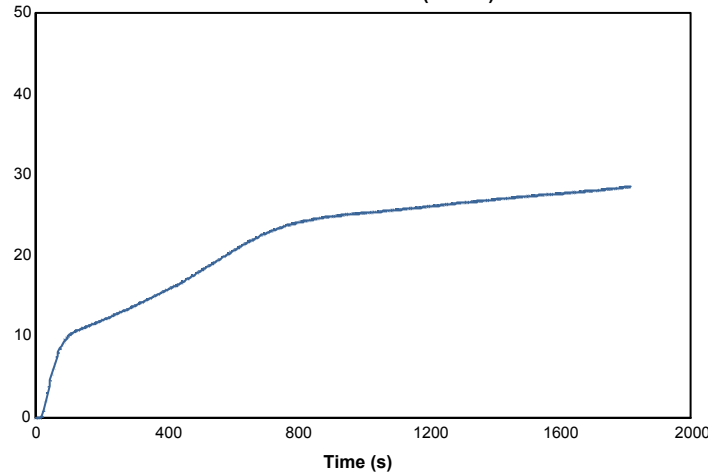
Client : The Laminex Group
22 Trewin Street
Wendouree VIC 3355

Test Number : 16-006323
Issue Date : 22/12/2016
Print Date : 31/05/2017
Order Number : 2108

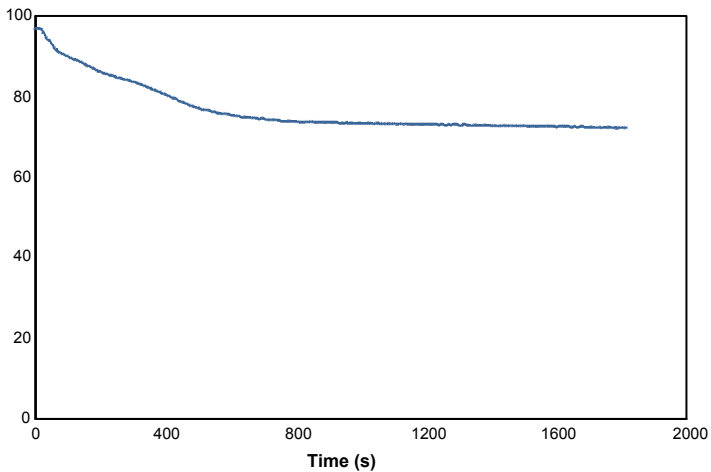
Mass loss rate (g/s)



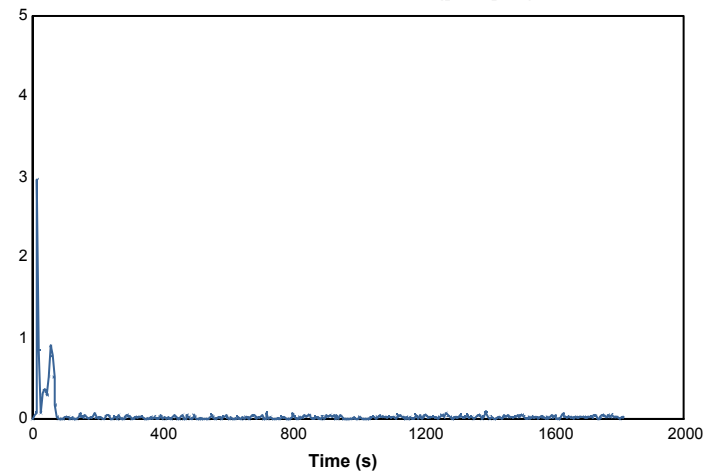
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



47171

16406

Page 6 of 8

© Australian Wool testing Authority Ltd
Copyright - All Rights Reserved



Accredited for compliance with ISO/IEC 17025

- Chemical Testing
- Mechanical Testing
- Performance & Approvals Testing

: Accreditation No. 983
: Accreditation No. 985
: Accreditation No. 1356

Samples and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. This document shall not be reproduced except in full and shall be rendered void if amended or altered. This document, the names AWTA Product Testing and AWTA Ltd may be used in advertising providing the content and format of the advertisement have been approved by the Managing Director of AWTA Ltd.



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

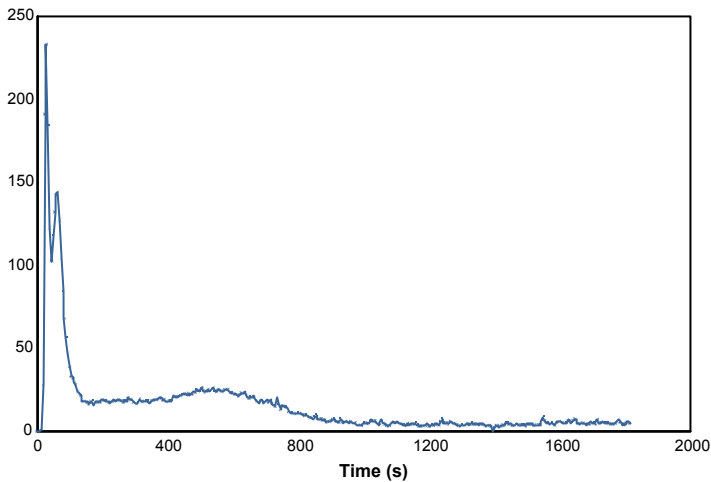
TEST REPORT

Client : The Laminex Group
22 Trewin Street
Wendouree VIC 3355

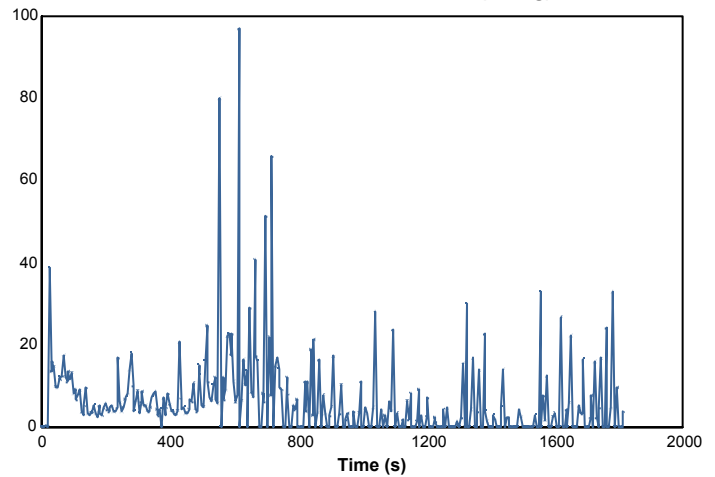
Test Number : 16-006323
Issue Date : 22/12/2016
Print Date : 31/05/2017
Order Number : 2108

Specimen : 3

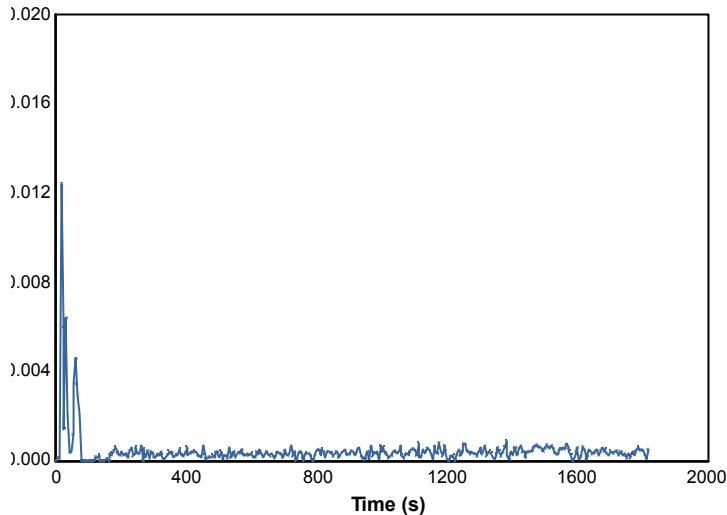
Heat release rate (kW/m²)



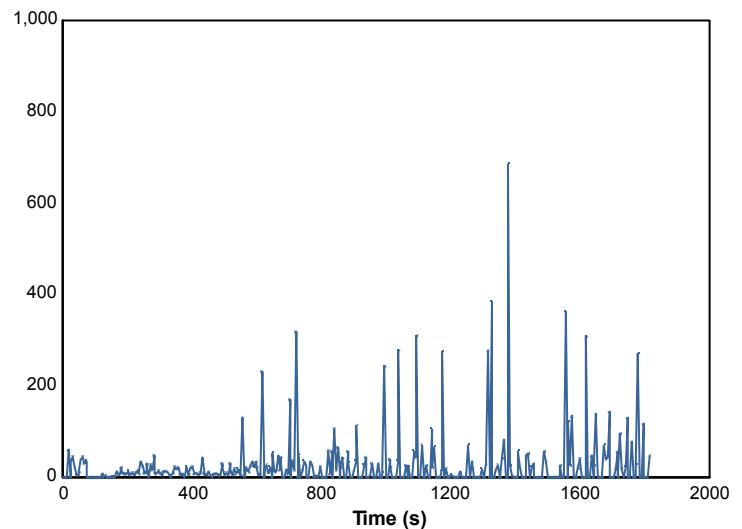
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



47171

16406

Page 7 of 8

© Australian Wool testing Authority Ltd
Copyright - All Rights Reserved



Accredited for compliance with ISO/IEC 17025
- Chemical Testing
- Mechanical Testing
- Performance & Approvals Testing

: Accreditation No. 983
: Accreditation No. 985
: Accreditation No. 1356



Samples and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. This document shall not be reproduced except in full and shall be rendered void if amended or altered. This document, the names AWTA Product Testing and AWTA Ltd may be used in advertising providing the content and format of the advertisement have been approved by the Managing Director of AWTA Ltd.

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

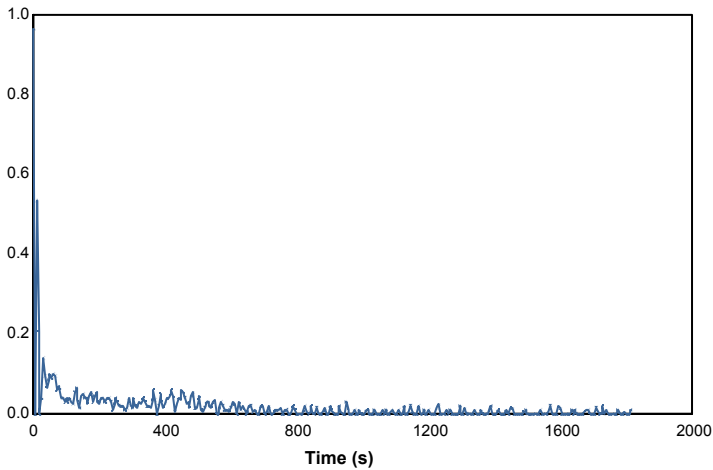
Phone (03) 9371 2400 Fax (03) 9371 2499

TEST REPORT

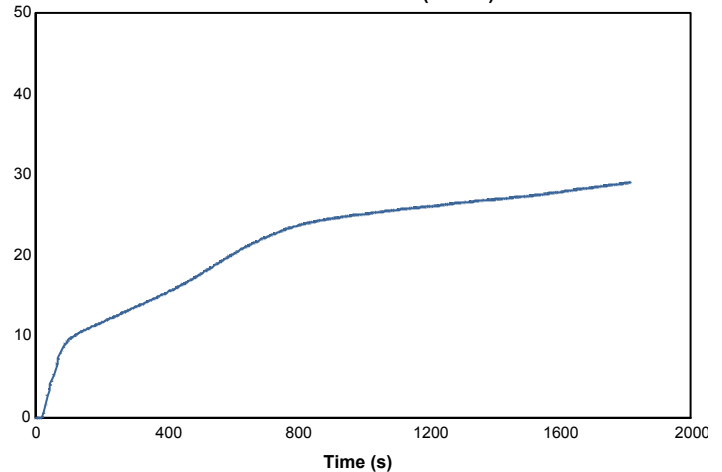
Client : The Laminex Group
22 Trewin Street
Wendouree VIC 3355

Test Number : 16-006323
Issue Date : 22/12/2016
Print Date : 31/05/2017
Order Number : 2108

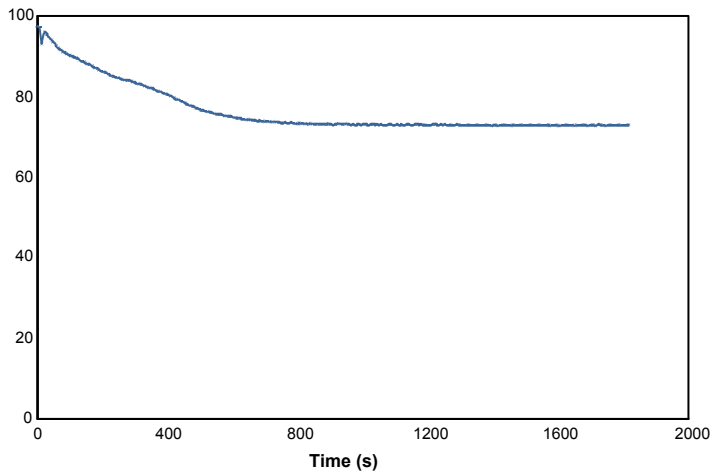
Mass loss rate (g/s)



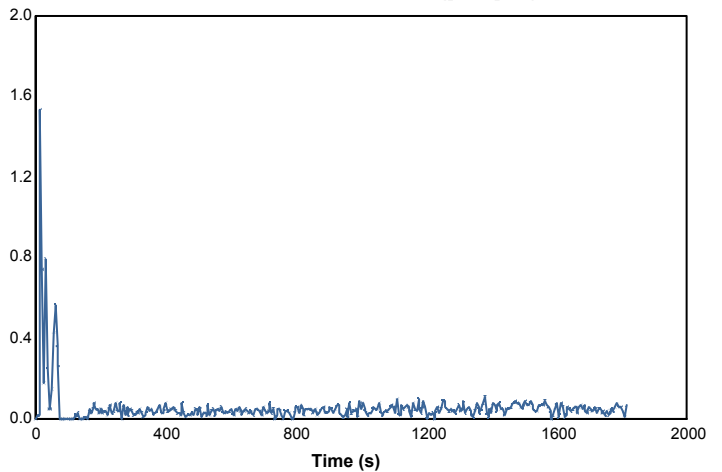
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



47171

16406

Page 8 of 8

© Australian Wool testing Authority Ltd
Copyright - All Rights Reserved



Accredited for compliance with ISO/IEC 17025

- Chemical Testing
- Mechanical Testing
- Performance & Approvals Testing

: Accreditation No. 983
: Accreditation No. 985
: Accreditation No. 1356



Samples and their identifying descriptions have been provided by the client unless otherwise stated. AWTA Ltd makes no warranty, implied or otherwise, as to the source of the tested samples. The above test results relate only to the sample or samples tested. This document shall not be reproduced except in full and shall be rendered void if amended or altered. This document, the names AWTA Product Testing and AWTA Ltd may be used in advertising providing the content and format of the advertisement have been approved by the Managing Director of AWTA Ltd.

APPROVED SIGNATORY

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