

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 : Materialised Pty Ltd
19 Heath Road
Blakehurst NSW 2221

Test Number : 18-003326
Issue Date : 23/06/2018
Print Date : 28/06/2018

Sample Description Clients Ref : "Silica"
Coated knitted textile
Colour : Alloy
Nominal Composition : Silicone coated polyester
Nominal Mass per Unit Area/Density : 1.6 lb
Nominal Thickness : 1mm

AS/NZS 3837-1998

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

Date Tested 23/06/2018

	Specimen			Mean	
	1	2	3		
Average Heat Release Rate	36.4	40.4	41.7	39.5	kW/m ²
Average Specific extinction area	153.8	189.4	190.1	177.7	m ² /kg

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

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	158	206	163	176	sec
Test duration	564	492	486	514	sec
Peak heat release after ignition	103.4	105.0	104.5	104.3	kW/m ²
Average heat at 60 s	48.3	81.0	57.0	62.1	kW/m ²
Average heat at 180 s	57.9	54.5	63.0	58.5	kW/m ²
Average heat at 300 s	45.0	40.4	43.7	43.0	kW/m ²
Total heat released	14.8	11.9	13.7	13.5	MJ/m ²

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- Chemical Testing
- Mechanical Testing
- Performance & Approvals Testing

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



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APPROVED SIGNATORY

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

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Average effective heat of combustion	9.4	9.1	9.2	9.2	MJ/kg
Initial thickness	7.0	7.0	7.0	7.0	mm
Initial mass	90	90.5	91.8	90.8	g
Mass remaining	74.0	75.5	76.6	75.4	g
Mass percentage pyrolysed	17.8	16.5	16.5	16.9	%
Mass loss	16.0	15.0	15.2	15.4	g
Average rate of mass loss	3.9	4.4	4.5	4.3	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.

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 intumescent sample within the sample holder.

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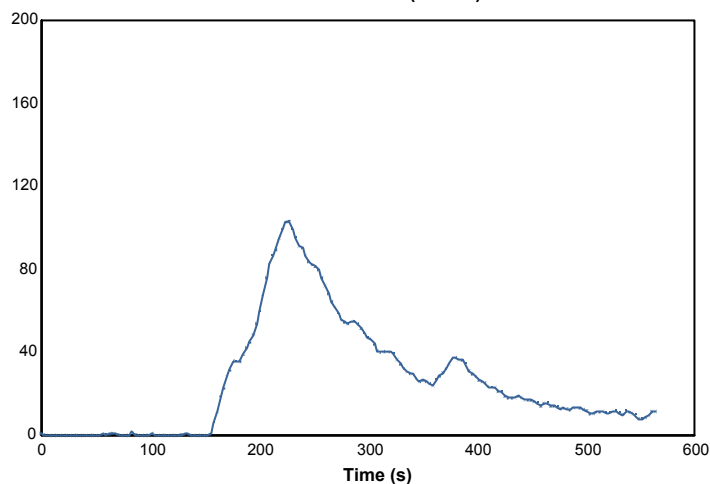
TEST REPORT

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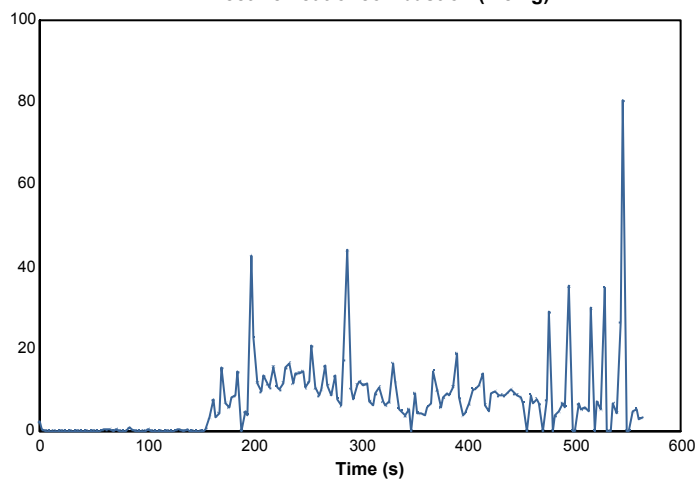
Test Number : 18-003326
Issue Date : 23/06/2018
Print Date : 28/06/2018

Specimen : 1

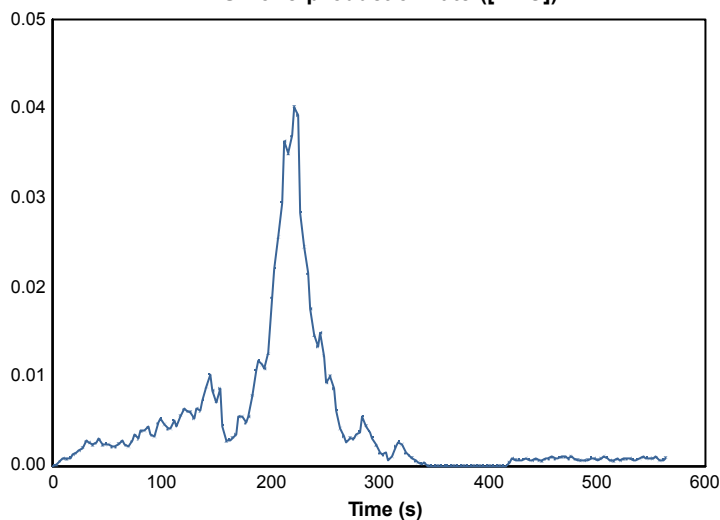
Heat release rate (kW/m²)



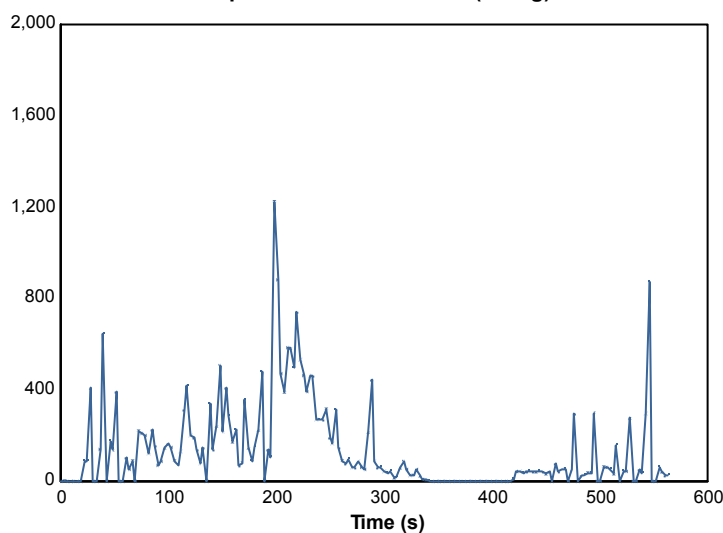
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



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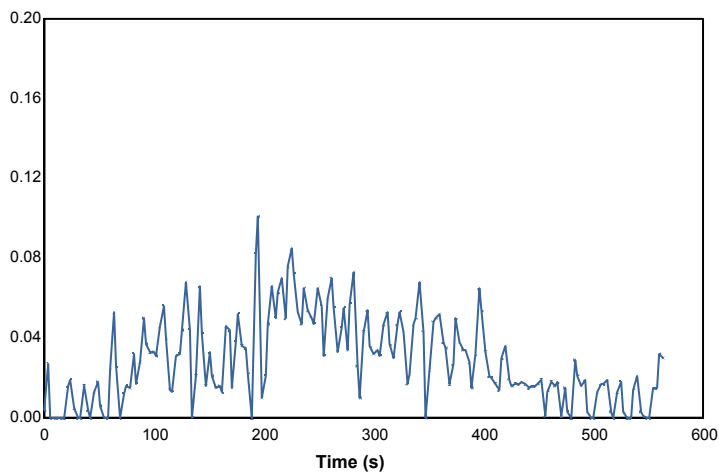
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TEST REPORT

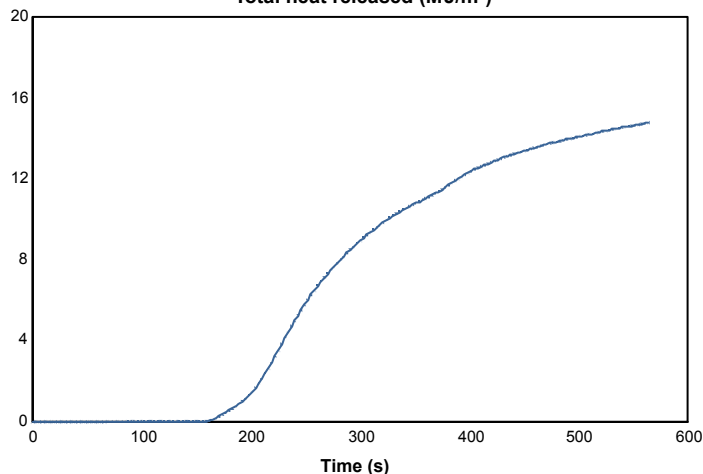
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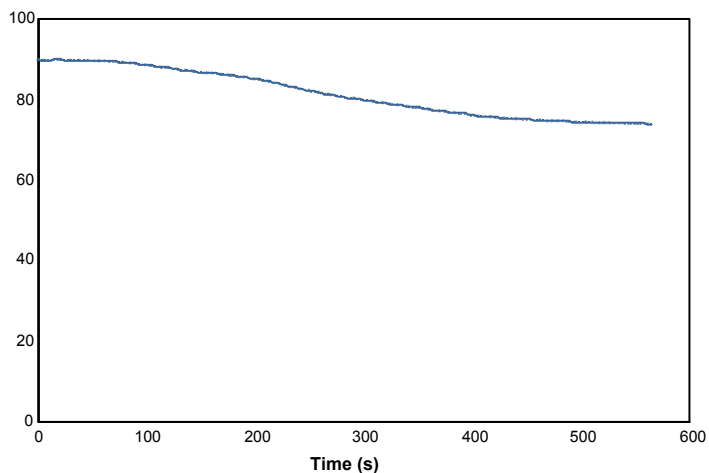
Mass loss rate (g/s)



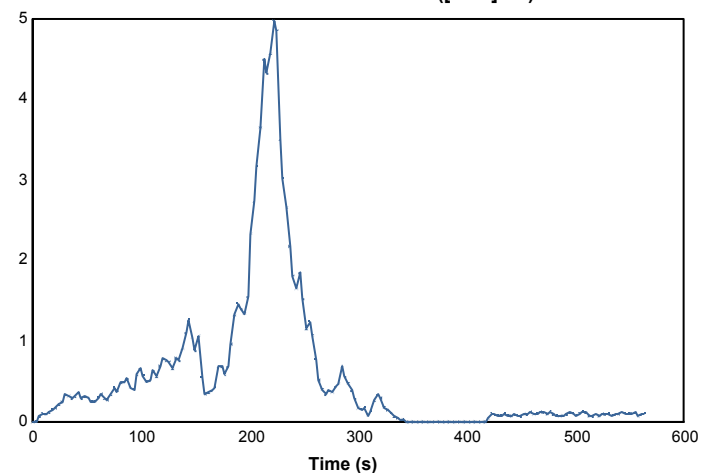
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



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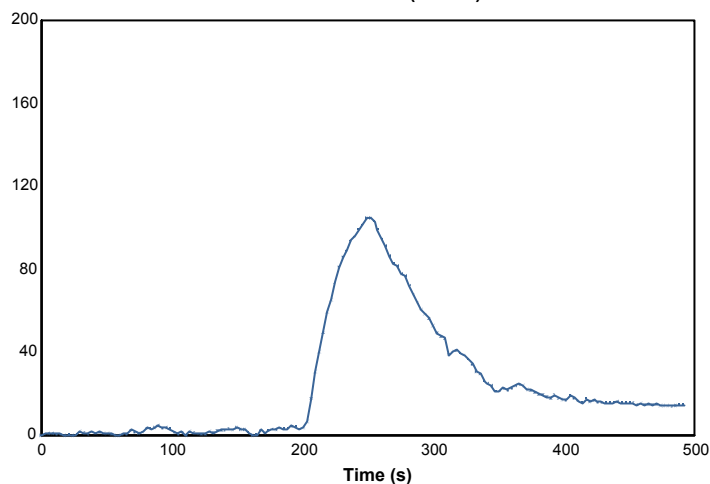
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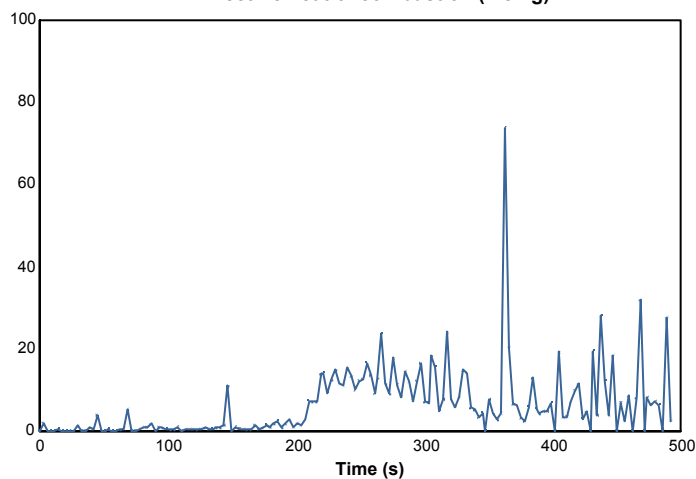
Test Number : 18-003326
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Specimen : 2

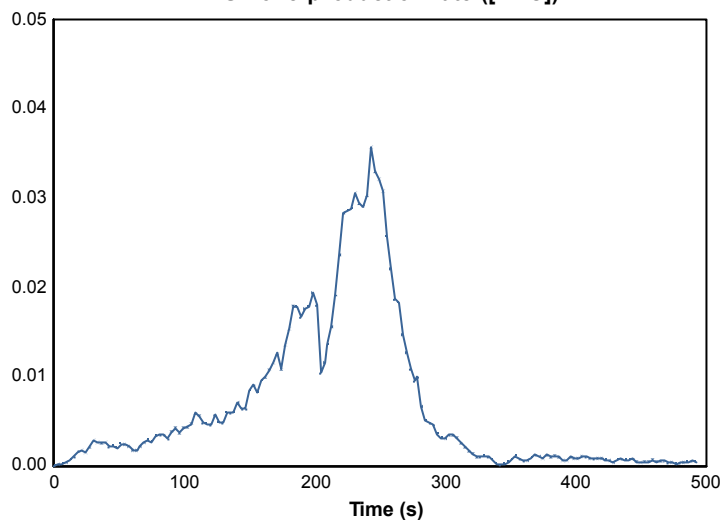
Heat release rate (kW/m²)



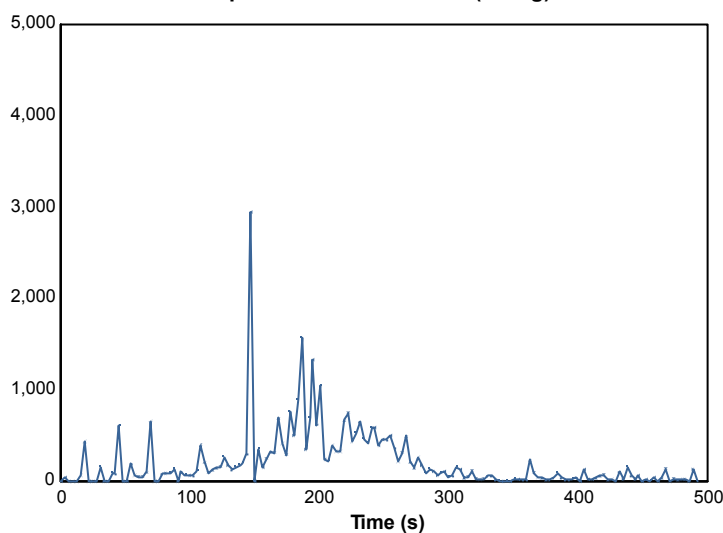
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



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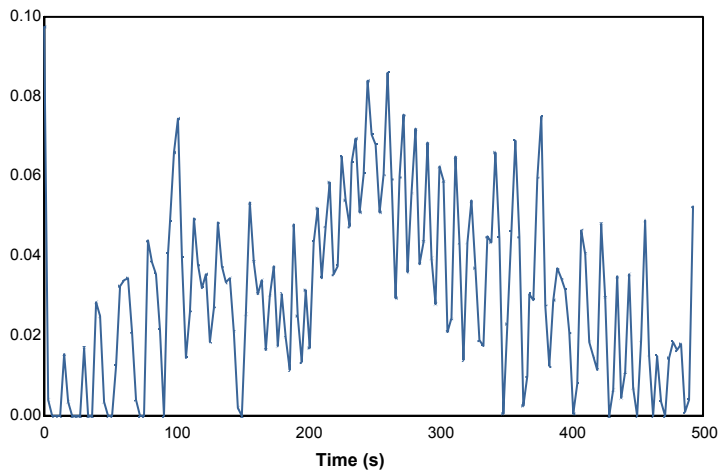
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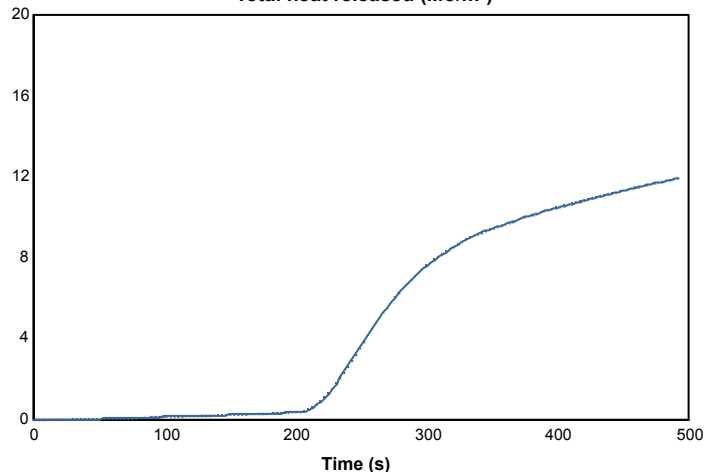
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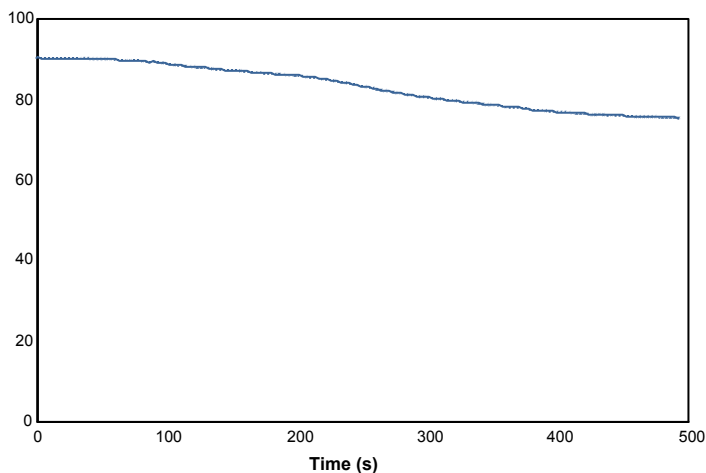
Mass loss rate (g/s)



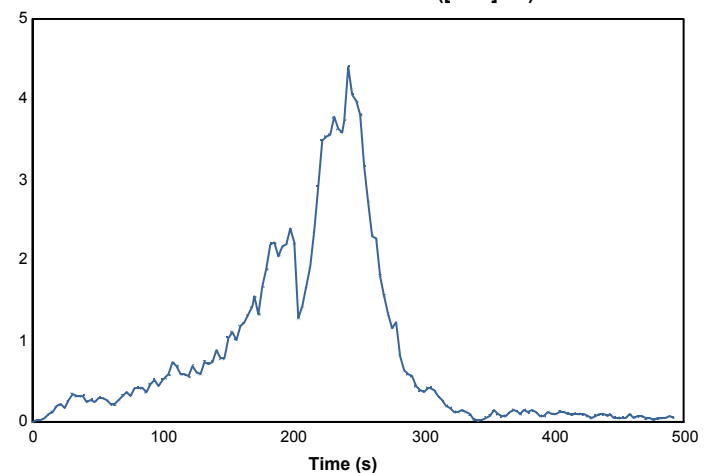
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



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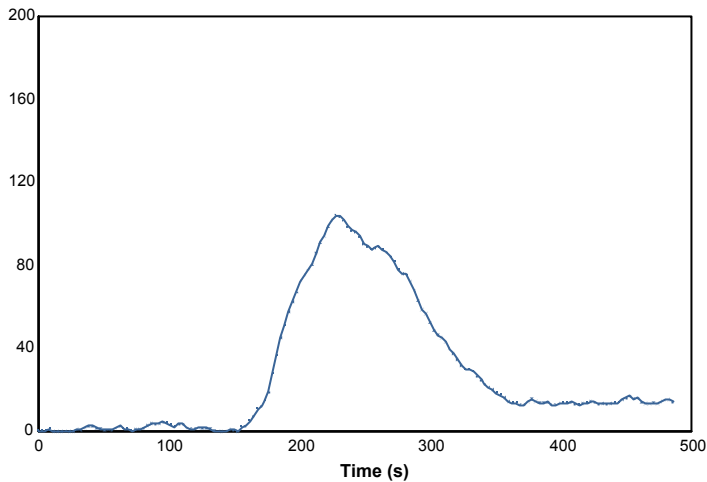
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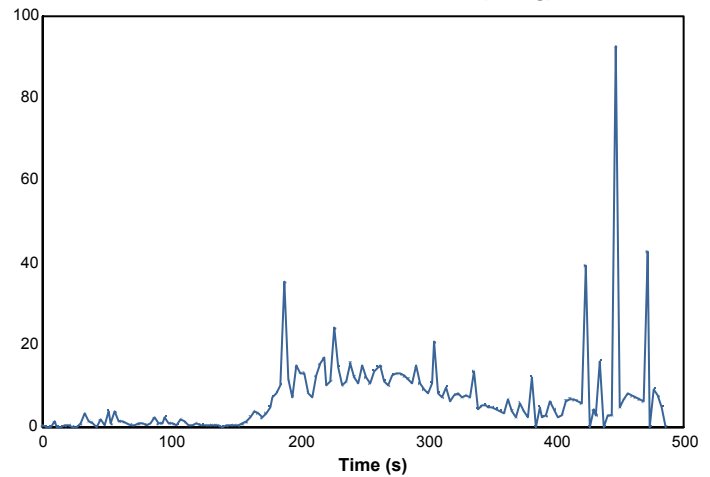
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Specimen : 3

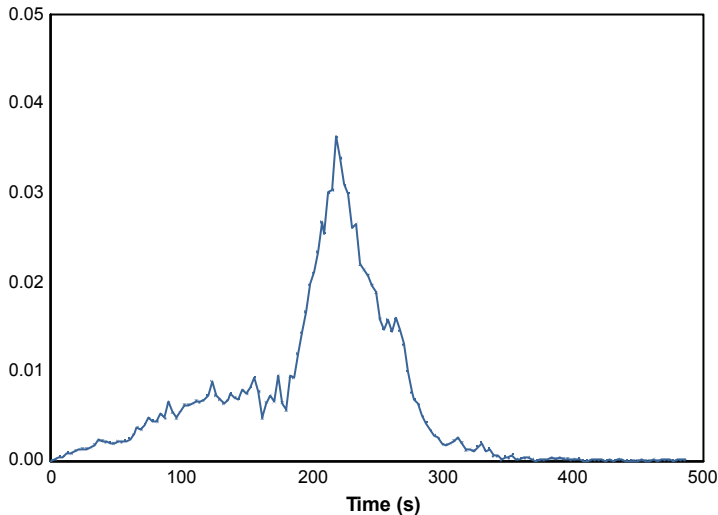
Heat release rate (kW/m²)



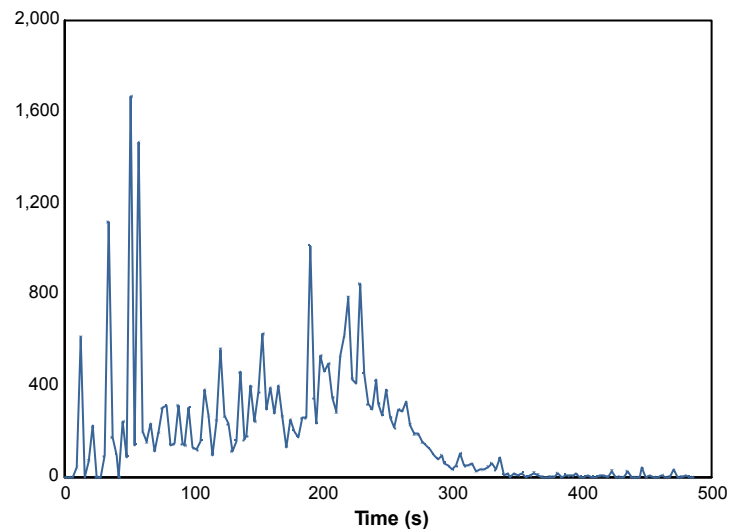
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



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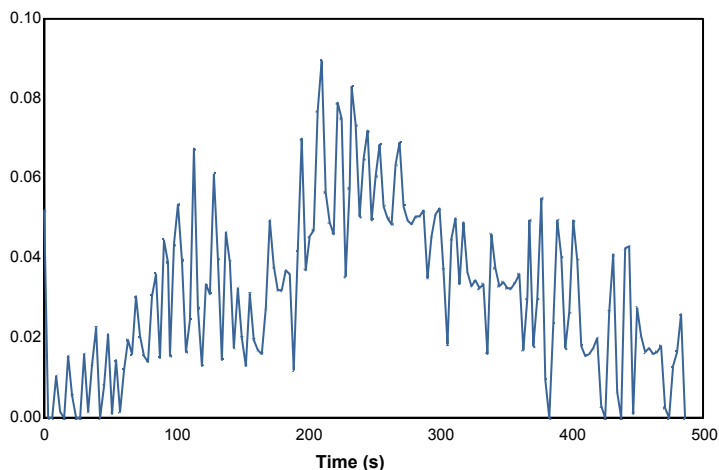
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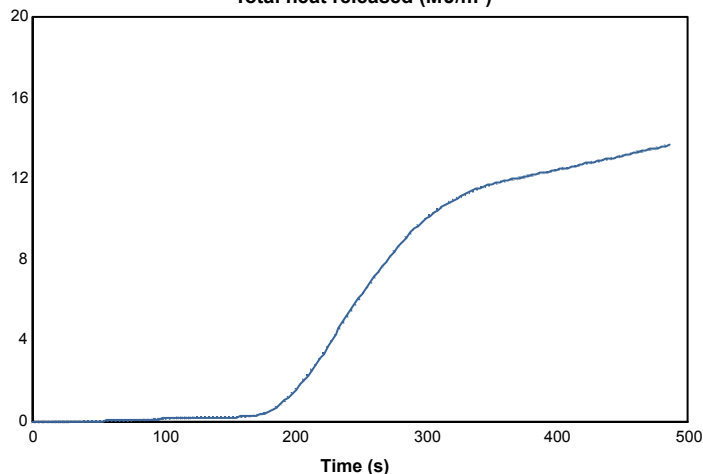
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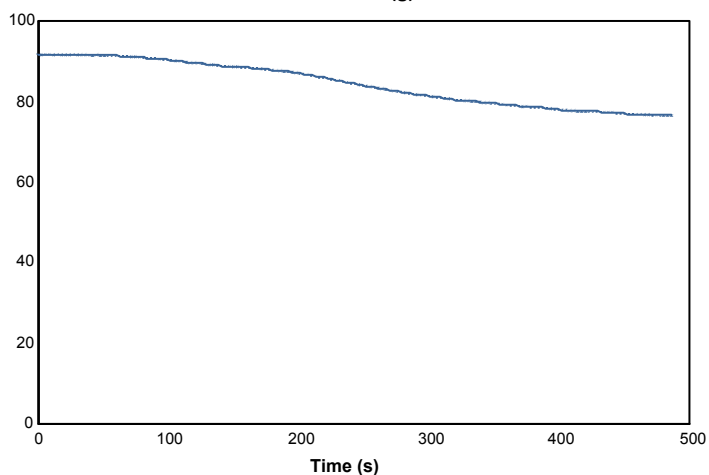
Mass loss rate (g/s)



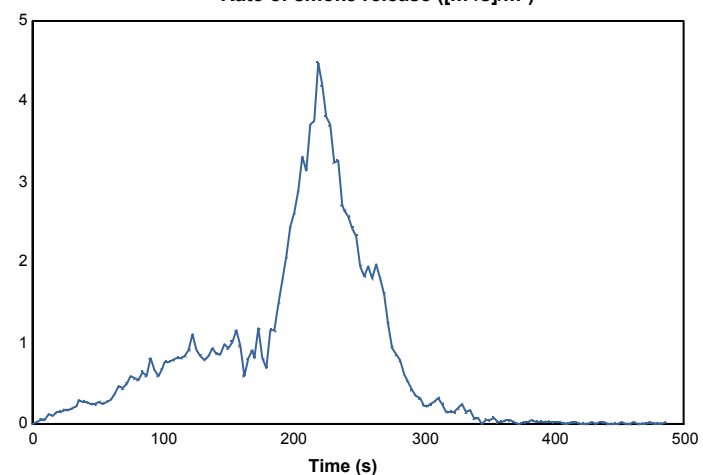
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



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TEST REPORT

Client : Materialised Pty Ltd
19 Heath Road
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Test Number : 18-002731
Issue Date : 04/06/2018
Print Date : 8/06/2018
Order Number : 38196

Sample Description Clients Ref : "Silica"
Coated knitted fabric
Colour : Alloy
End Use : Upholstery
Nominal Composition : 100% Silicone coating on polyester base
Nominal Mass per Unit Area/Density : 1.60lbs
Nominal Thickness : Approx 1mm

AS/NZS 3837-1998 (Guidance)

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

Date Tested 04/06/2018

Specimen

1

Average Heat Release Rate	36.4	kW/m ²
Average Specific extinction area	153.8	m ² /kg

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

Test orientation : Horizontal

Specimen

1

Irradiance	50	kW/m ²
Exhaust flow rate	24	L/sec
Time to sustained flaming	158	sec
Test duration	564	sec

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Test Number : 18-002731
Issue Date : 04/06/2018
Print Date : 8/06/2018
Order Number : 38196

Peak heat release after ignition	103.4	kW/m ²
Average heat at 60 s	48.3	kW/m ²
Average heat at 180 s	57.9	kW/m ²
Average heat at 300 s	45.0	kW/m ²
Total heat released	14.8	MJ/m ²
Average effective heat of combustion	9.4	MJ/kg
Initial thickness	7.0	mm
Initial mass	90	g
Mass remaining	74.0	g
Mass percentage pyrolysed	17.8	%
Mass loss	16.0	g
Average rate of mass loss	3.9	g/m ² .s
Group Number Classification	1	

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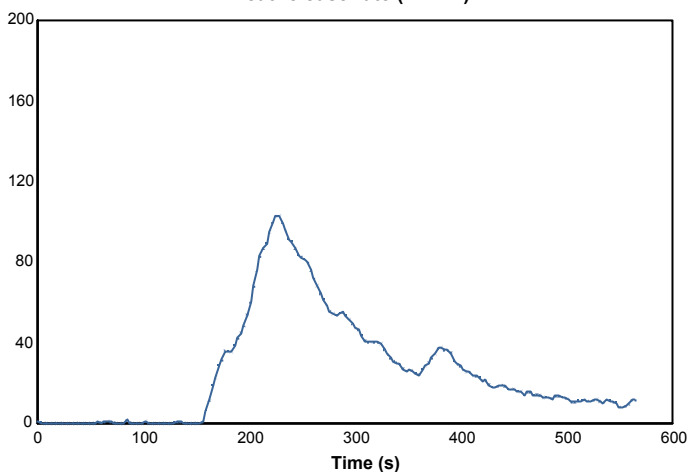
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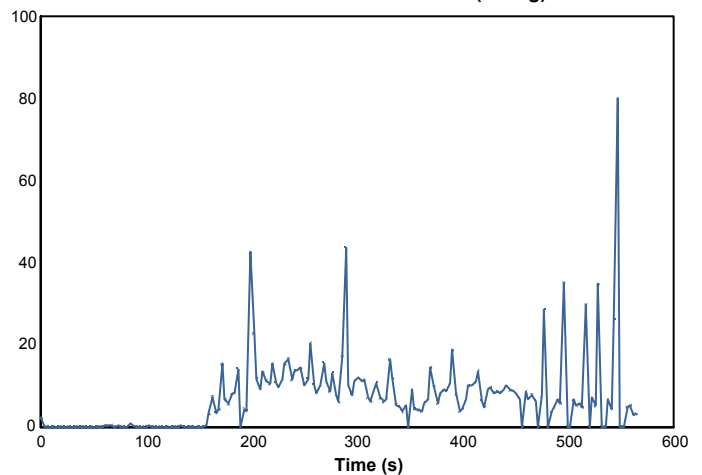
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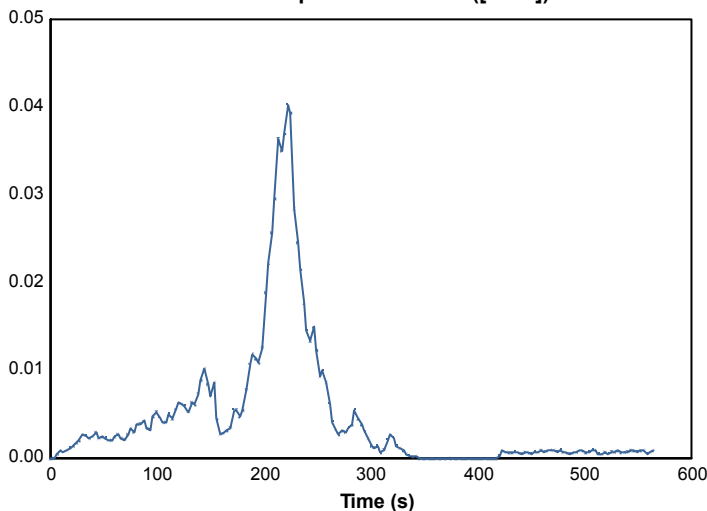
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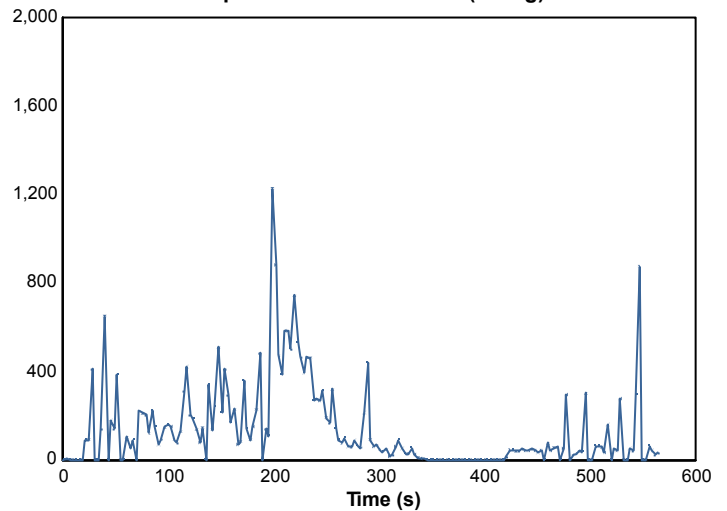
Effective heat of combustion (MJ/kg)



Smoke production rate (l/m²/s)



Specific extinction area (m²/kg)



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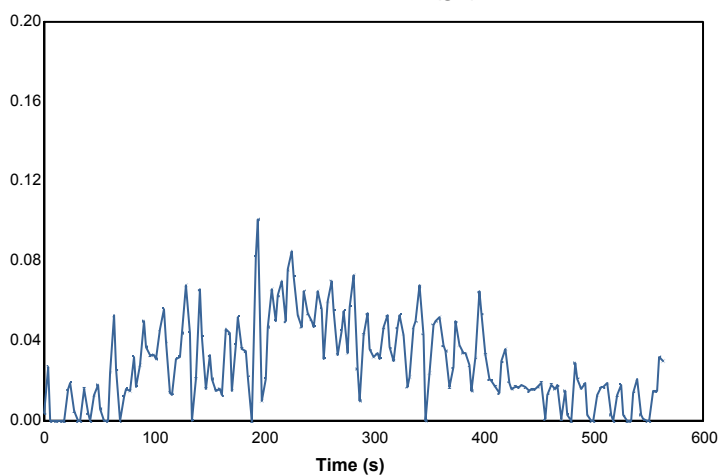
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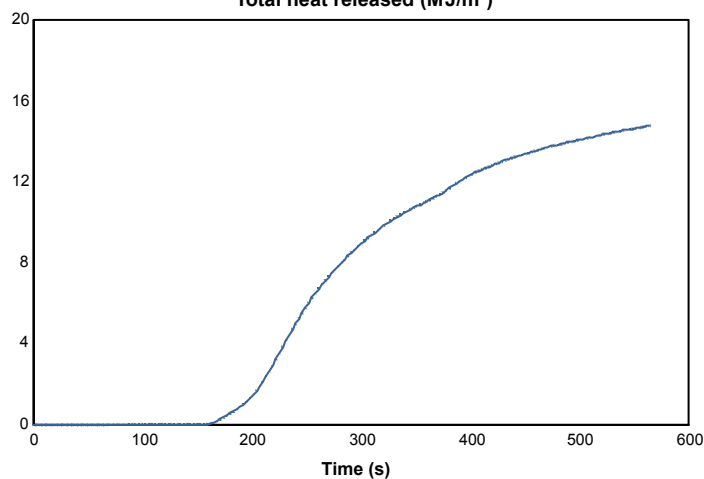
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Order Number : 38196

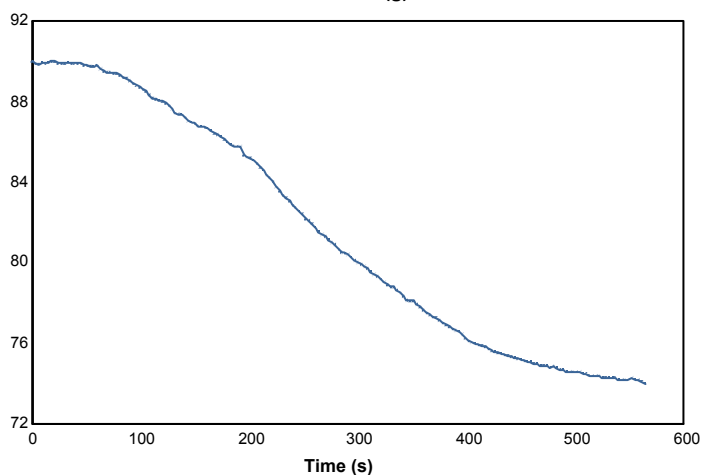
Mass loss rate (g/s)



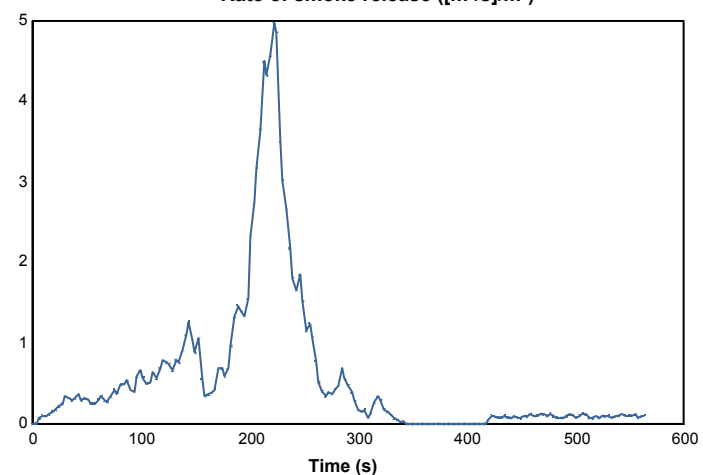
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



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Accredited for compliance with ISO/IEC 17025 - Testing

- 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. The above test results are designed to provide THE CLIENT WITH GUIDANCE INFORMATION ONLY. 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 in advance by the Managing Director of AWTA Ltd.



AWTA PRODUCT TESTING

Australian Wool Testing Authority Ltd - trading as AWTA Product Testing

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P.O Box 240, North Melbourne, Victoria 3051

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

Group Number Assessment

(In accordance with AS 5637.1-2015)

This is to confirm that the product as described below has been tested by AWTA Product Testing .

Testing was performed in accordance with AS/NZS 3837-1998 Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter.

Test Sponsor : Materialised Pty Ltd
19 Heath Road
Blakehurst NSW 2221

Test Number : 18-003326
Issue Date : 28/06/2018
Print Date : 28/06/2018

Sponsor Product Clients Ref : "Silica"
Coated knitted textile
Colour : Alloy
Nominal Composition : Silicone coated polyester
Nominal Mass per Unit Area/Density : 1.6 lb
Nominal Thickness : 1mm

Product Group Number Classification : 1

Average Specific Extinction Area : 177.7 m²/kg



Chris Campbell
Client Relations Manager

28474

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