

# 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 :** Gunnensen Timbermark Pty Ltd  
112 Salmon Street  
Port Melbourne VIC 3207

**Test Number :** 14-000762  
**Issue Date :** 05/11/2014  
**Print Date :** 5/11/2014

**Sample Description** Clients Ref : "Birch Plywood"  
Plywood  
Colour : Natural  
End Use : Exterior plywood  
Nominal Composition : Birch, 12Ply  
Nominal Mass per Unit Area/Density : Approx: 11kg/m2  
Nominal Thickness : 16mm

### AS/NZS 3837-1998

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

	Specimen			Mean	
	1	2	3		
Average Heat Release Rate	66.2	61.0	60.5	62.5	kW/m <sup>2</sup>
Average Specific extinction area	24.7	21.5	39.2	28.4	m <sup>2</sup> /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 <sup>2</sup>
Exhaust flow rate	24	24	24	24	L/sec
Time to sustained flaming	30	28	30	29	sec
Test duration	3600	3600	3600	3600	sec
Peak heat release after ignition	335.2	379.4	293.5	336.0	kW/m <sup>2</sup>
Average heat at 60 s	128.5	146.2	135.6	136.8	kW/m <sup>2</sup>
Average heat at 180 s	149.8	157.2	151.3	152.8	kW/m <sup>2</sup>
Average heat at 300 s	144.6	148.5	143.3	145.5	kW/m <sup>2</sup>
Total heat released	236.4	217.7	215.9	223.3	MJ/m <sup>2</sup>
Average effective heat of combustion	18.0	16.5	16.5	17.0	MJ/kg

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- 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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Initial thickness	16.0	16.0	16.0	16.0	mm
Initial mass	110.4	113.8	114.6	112.9	g
Mass remaining	3.1	6.4	8.3	5.9	g
Mass percentage pyrolysed	97.2	94.4	92.8	94.8	g
Mass loss	107.3	107.4	106.3	107.0	g
Average rate of mass loss	3.7	3.7	3.7	3.7	g/m <sup>2</sup> .s

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.

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.

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

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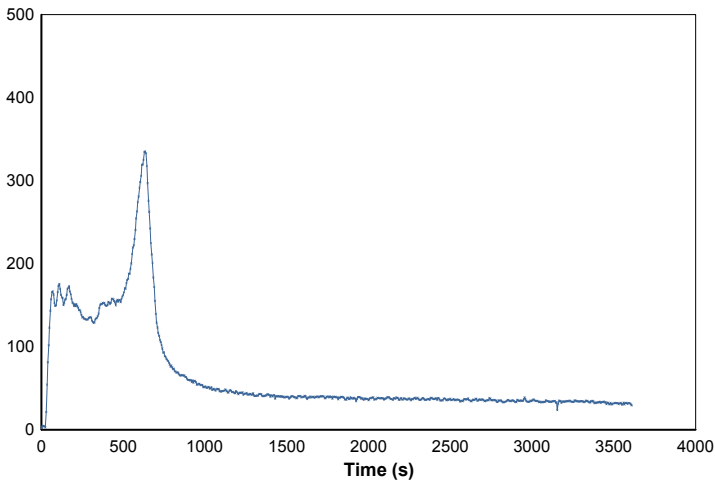
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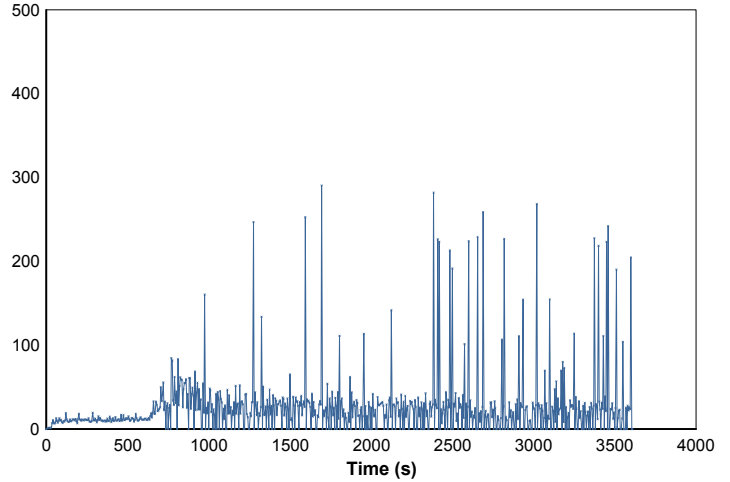
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**Issue Date :** 05/11/2014  
**Print Date :** 5/11/2014

**Specimen :** 1

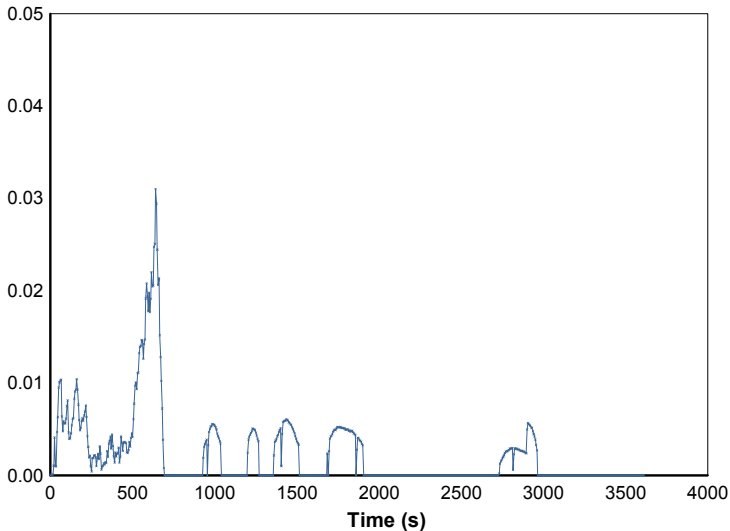
**Heat release rate (kW/m<sup>2</sup>)**



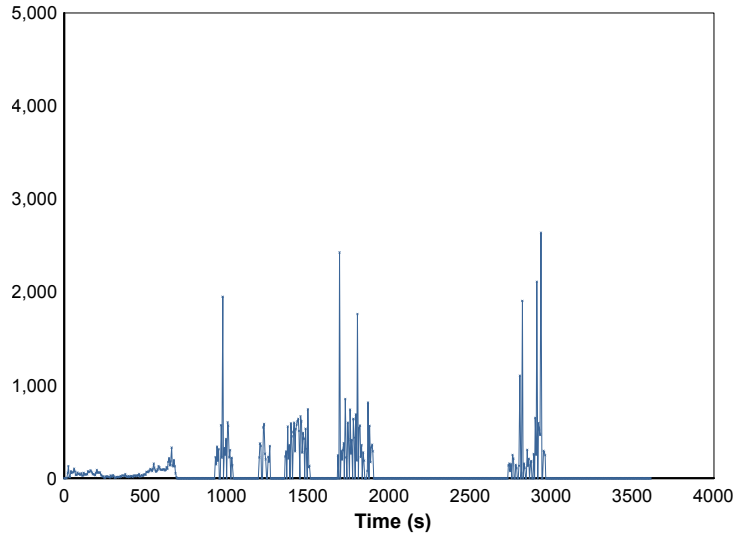
**Effective heat of combustion (MJ/kg)**



**Smoke production rate (l/m<sup>2</sup>/s)**



**Specific extinction area (m²/kg)**



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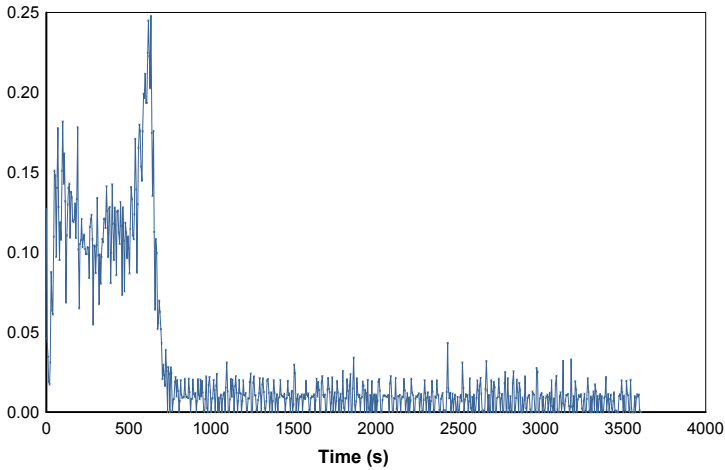
1st Floor, 191 Racecourse Road, Flemington, Victoria 3031  
P.O Box 240, North Melbourne, Victoria 3051  
Phone (03) 9371 2400 Fax (03) 9371 2499

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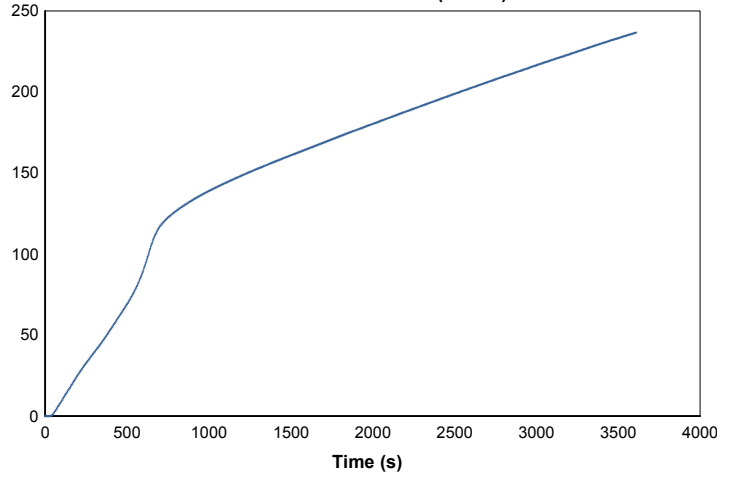
**Client :** Gunnersen Timbermark Pty Ltd  
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**Test Number :** 14-000762  
**Issue Date :** 05/11/2014  
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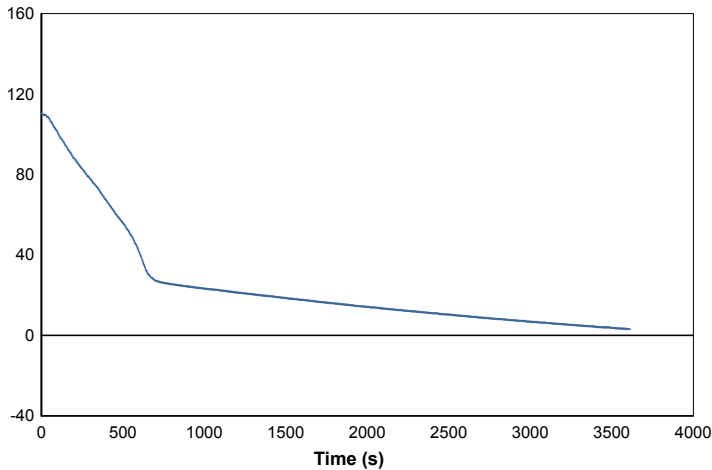
Mass loss rate (g/s)



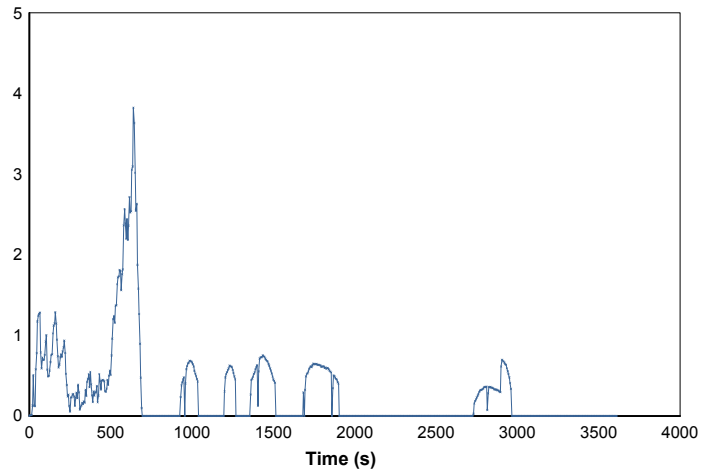
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



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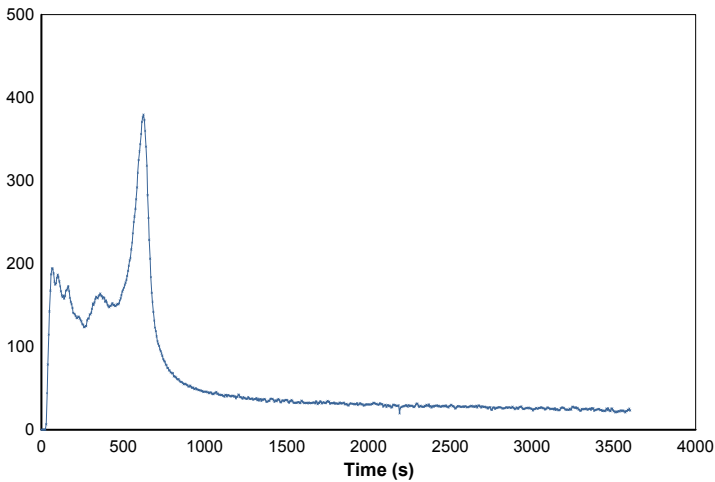
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**Client :** Gunnersen Timbermark Pty Ltd  
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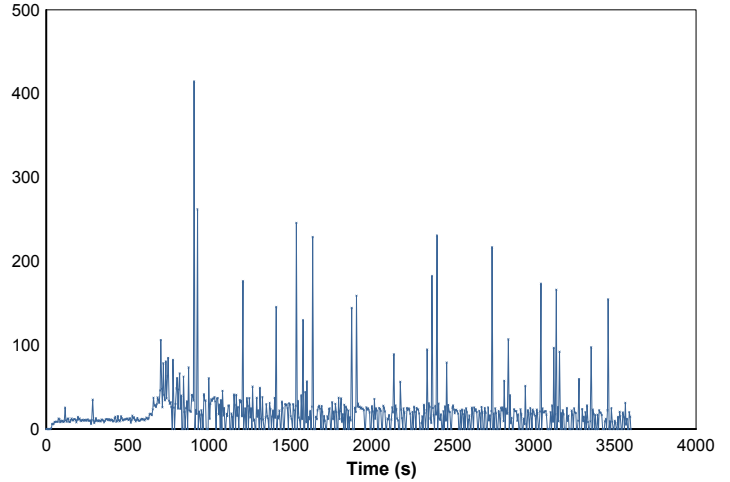
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**Issue Date :** 05/11/2014  
**Print Date :** 5/11/2014

**Specimen :** 2

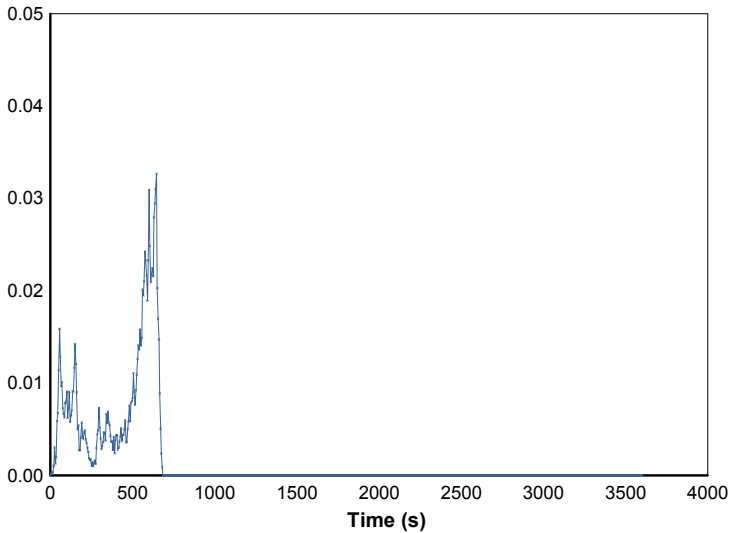
**Heat release rate (kW/m<sup>2</sup>)**



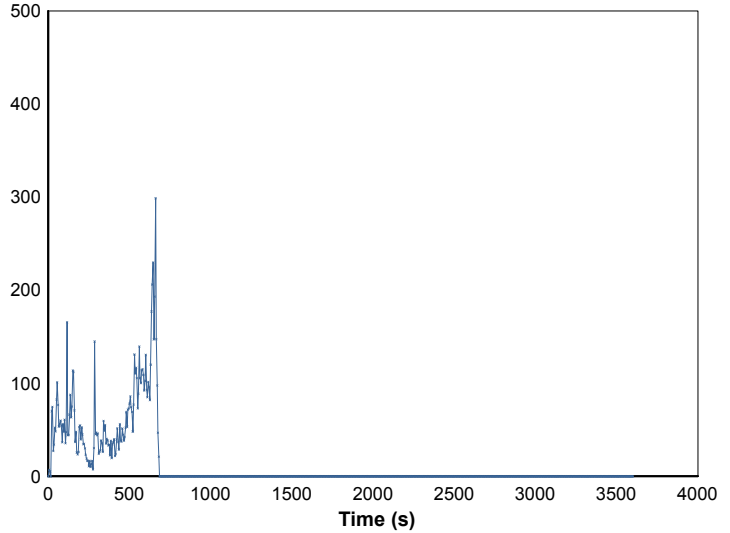
**Effective heat of combustion (MJ/kg)**



**Smoke production rate (l/m²/s)**



**Specific extinction area (m²/kg)**



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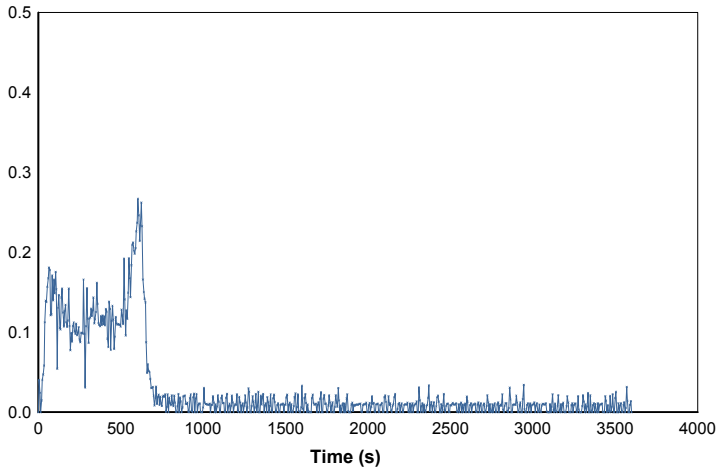
1st Floor, 191 Racecourse Road, Flemington, Victoria 3031  
P.O Box 240, North Melbourne, Victoria 3051  
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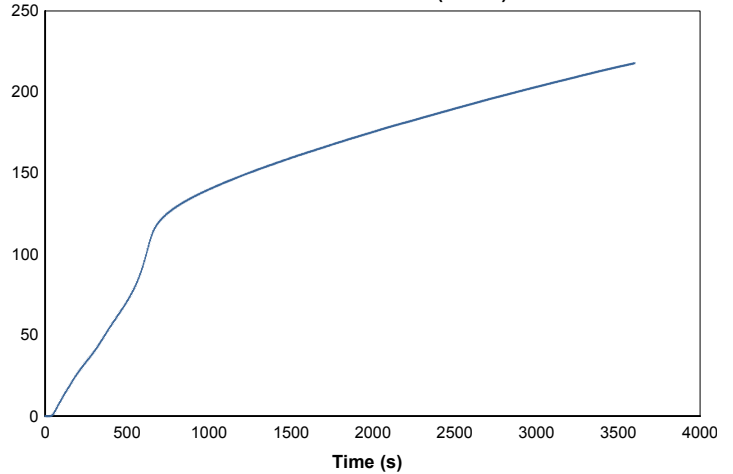
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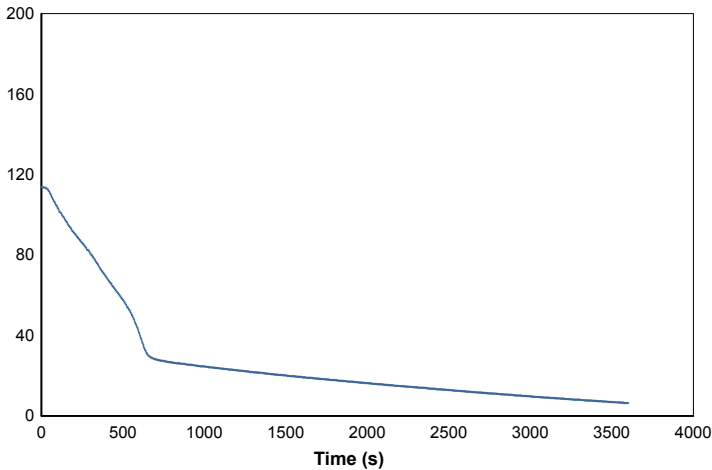
Mass loss rate (g/s)



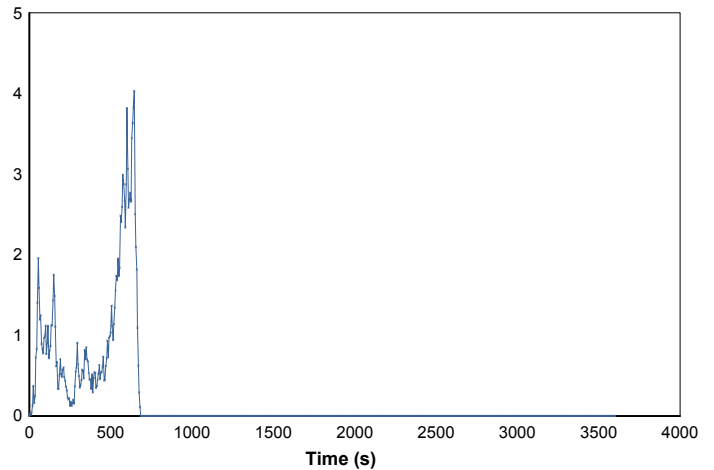
Total heat released (MJ/m<sup>2</sup>)



Mass (g)



Rate of smoke release ([m<sup>2</sup>/s]/m<sup>2</sup>)



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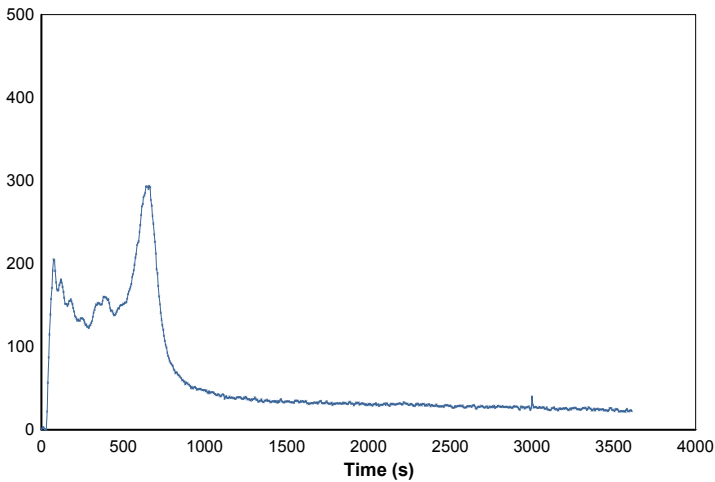
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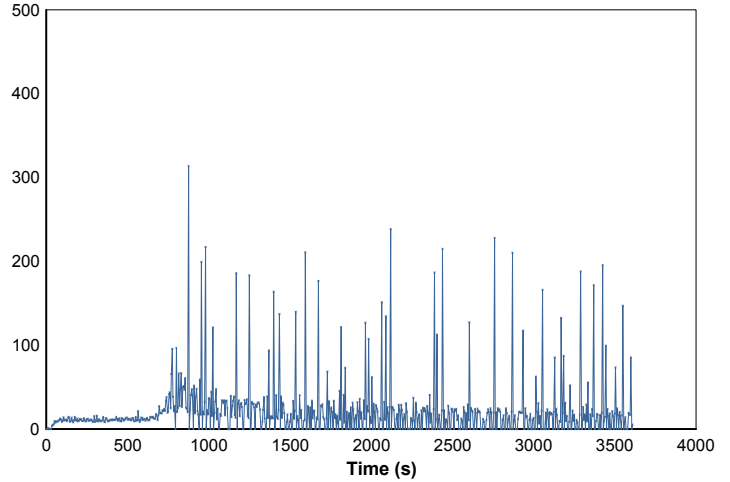
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**Specimen :** 3

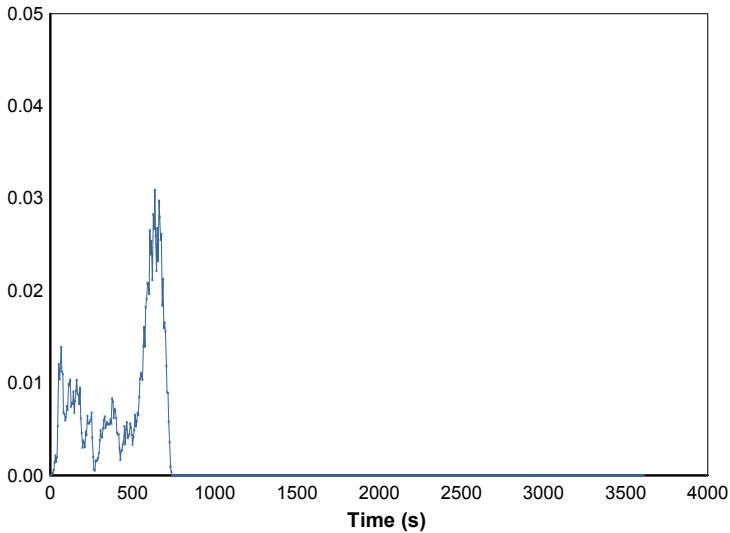
**Heat release rate (kW/m<sup>2</sup>)**



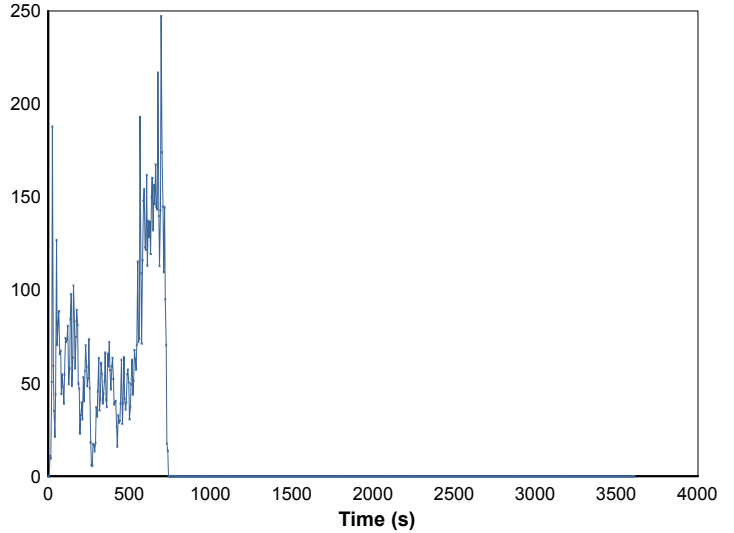
**Effective heat of combustion (MJ/kg)**



**Smoke production rate (l/m<sup>2</sup>/s)**



**Specific extinction area (m<sup>2</sup>/kg)**



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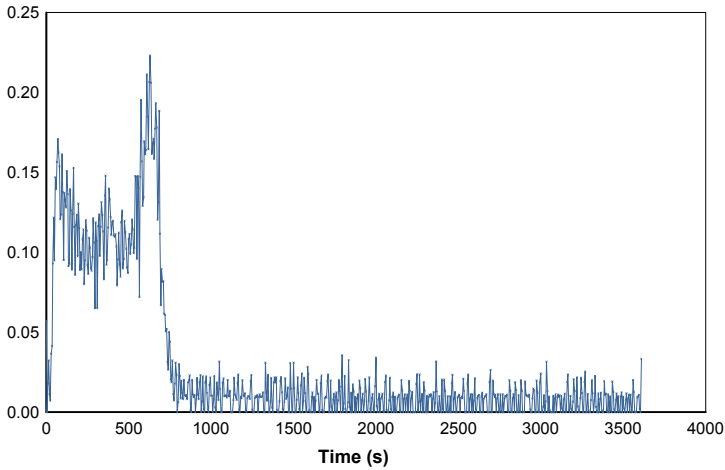
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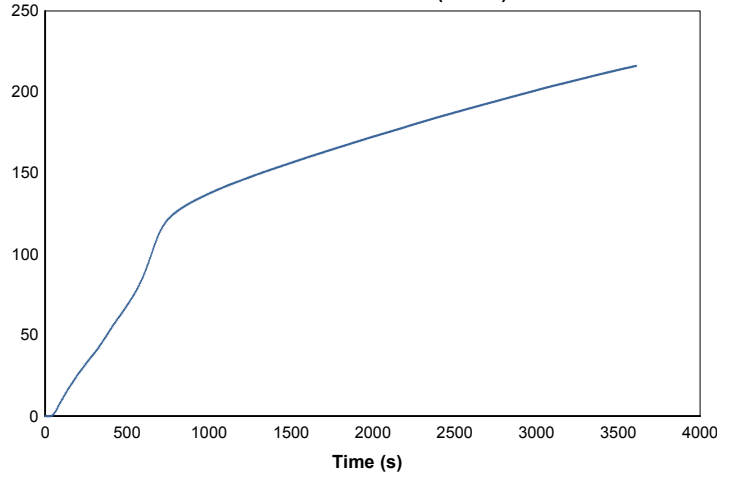
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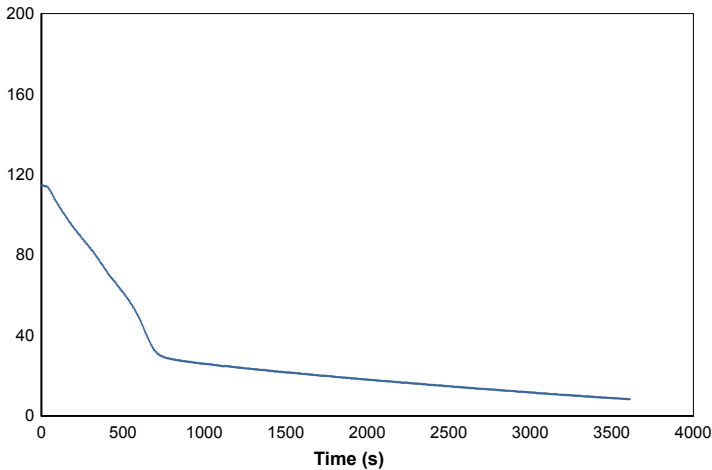
Mass loss rate (g/s)



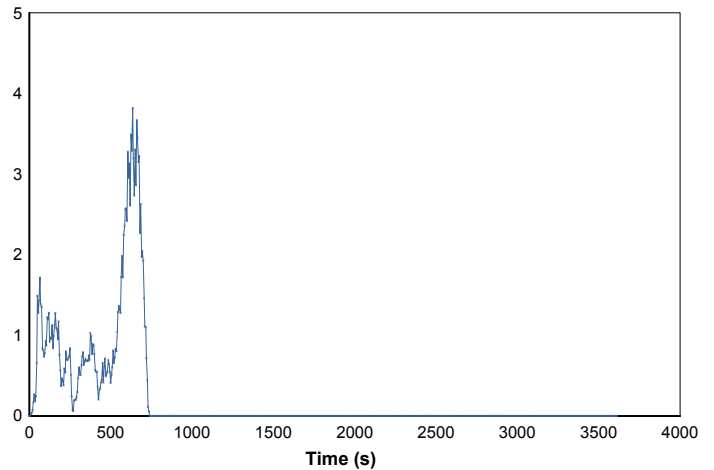
Total heat released (MJ/m<sup>2</sup>)



Mass (g)



Rate of smoke release ([m<sup>2</sup>/s]/m<sup>2</sup>)



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