

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

TEST REPORT

Client : Leto Bamboo
14 Endeavour Way
Braeside VIC 3195

Test Number : 20-001005
Issue Date : 21/04/2020
Print Date : 21/04/2020

Sample Description Clients Ref : "Bamboo Plywood"
Rigid panel
Colour : Natural
End Use : Wall and ceiling lining
Nominal Composition : 98 - 99% Bamboo 1-2% Non Toxic PVA type adhesive
Nominal Mass per Unit Area/Density : 690-808kg/m3
Nominal Thickness : 12.7mm

AS/NZS 3837-1998

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

Date Tested 20/04/2020
Operator AWTA Test Operator 3
Face Tested Face

	Specimen				
	1	2	3	Mean	
Average Heat Release Rate	55.6	71.1	65.2	64.0	kW/m ²
Average Specific extinction area	32.1	41.5	43.7	39.1	m ² /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/m ²
Exhaust flow rate	0.024	0.024	0.024	0.024	m ³ /s
Time to sustained flaming	26	25	29	27	sec
Test duration	2463	1711	1960	2045	sec
Peak heat release after ignition	351.3	283.9	291.8	309.0	kW/m ²
Average heat at 60 s	135.3	128.6	130.4	131.4	kW/m ²

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

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Average heat at 180 s	142.0	149.8	137.2	143.0	kW/m ²
Average heat at 300 s	126.7	139.0	135.0	133.6	kW/m ²
Total heat released	135.4	120.0	125.8	127.1	MJ/m ²
Average effective heat of combustion	14.3	13.1	13.1	13.5	MJ/kg
Initial thickness	13	13	13	13.0	mm
Initial mass	83.5	85.5	87.9	85.6	g
Mass at sustained flaming	83.2	85.2	87.8	85.4	g
Mass remaining	6.4	11.0	10.0	9.1	g
Mass percentage pyrolysed	92.3	87.2	88.6	89.3	%
Mass loss	9.5	9.2	9.6	9.4	kg/m ²
Average rate of mass loss	3.9	5.5	5.0	4.8	g/m ² .s
Additional Observations	none				
Difficulties Encountered during Testing	none				

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.

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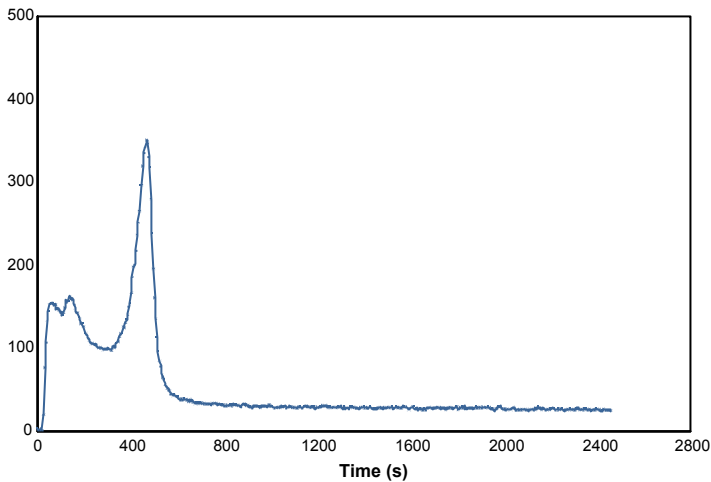
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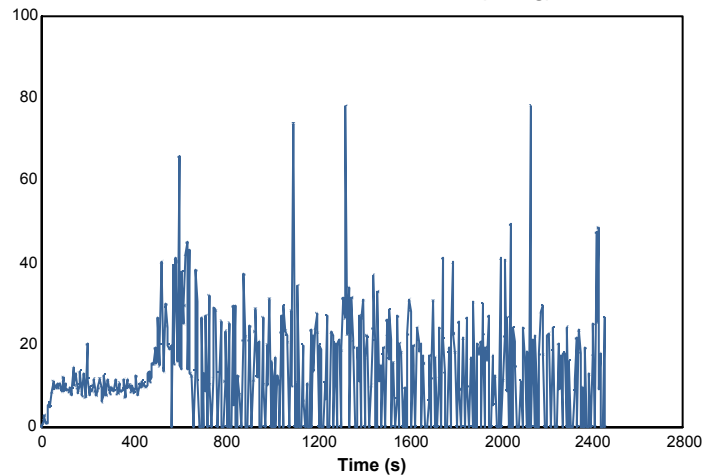
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Specimen : 1

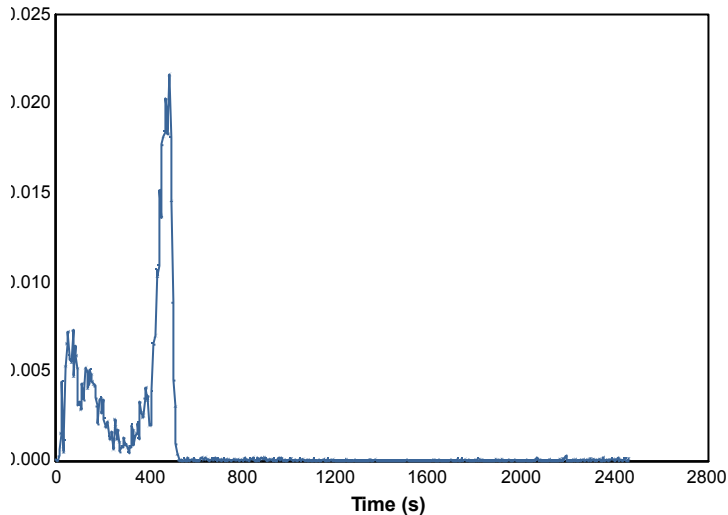
Heat release rate (kW/m²)



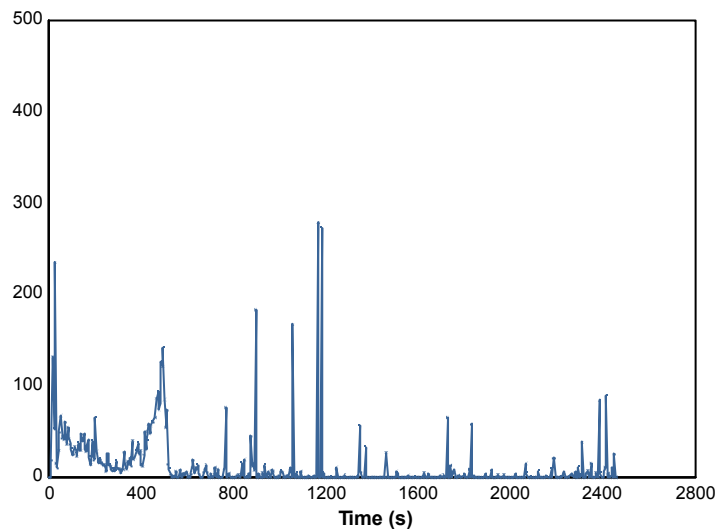
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



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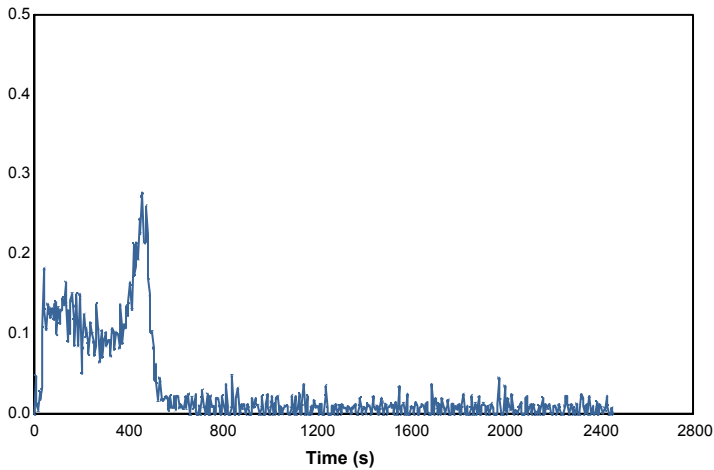
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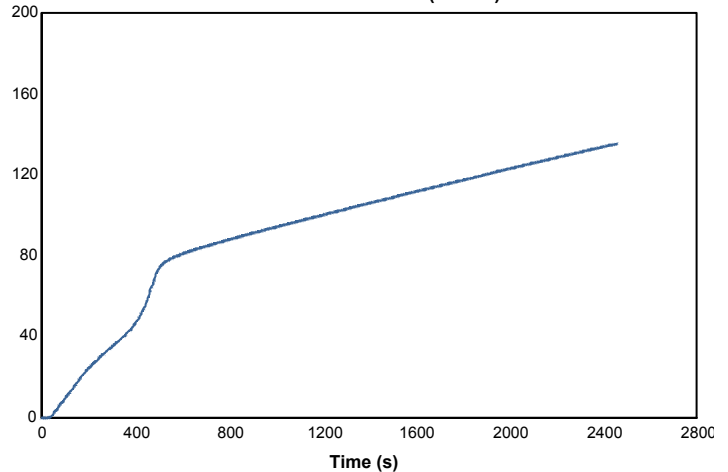
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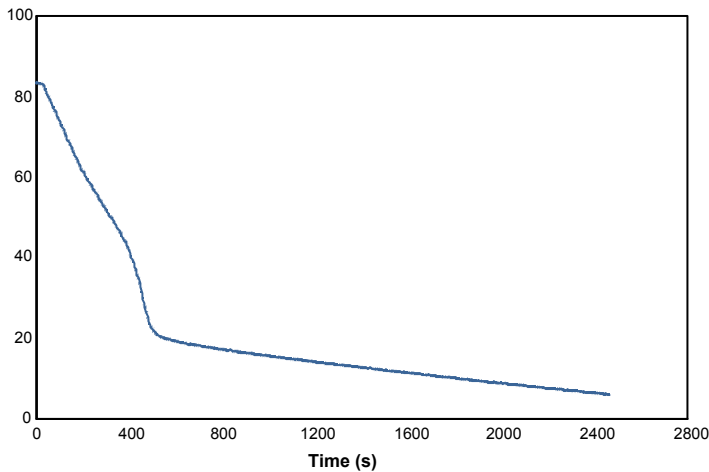
Mass loss rate (g/s)



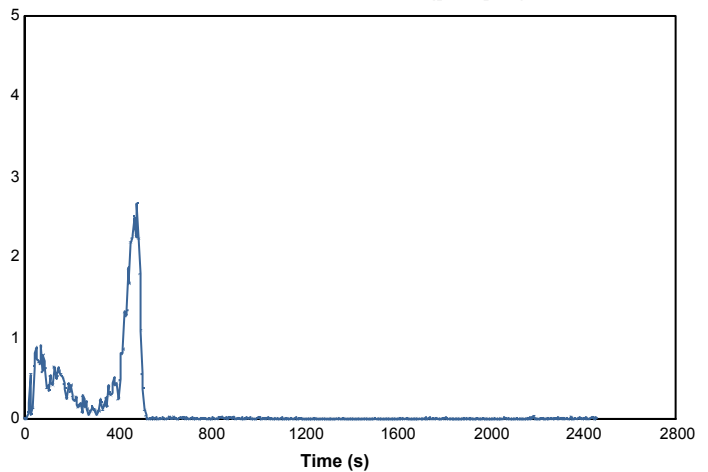
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



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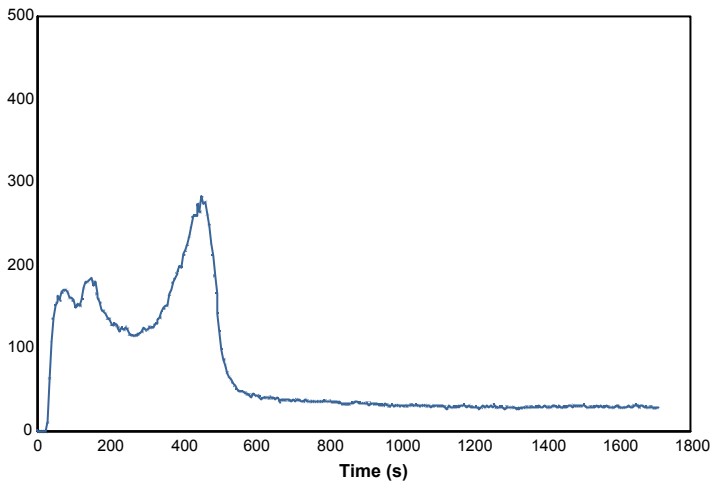
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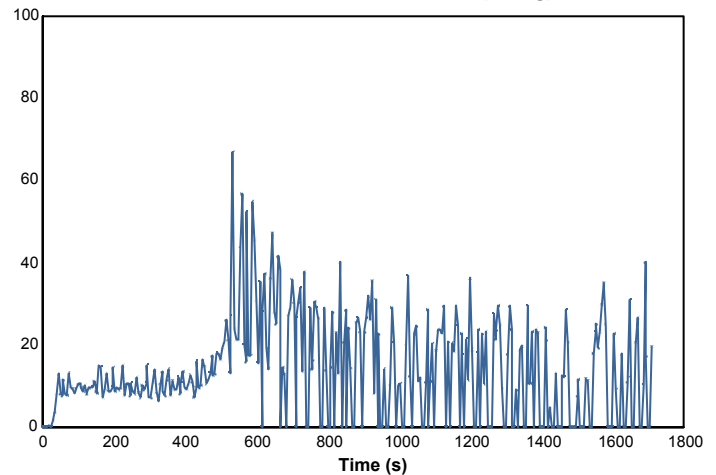
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Specimen : 2

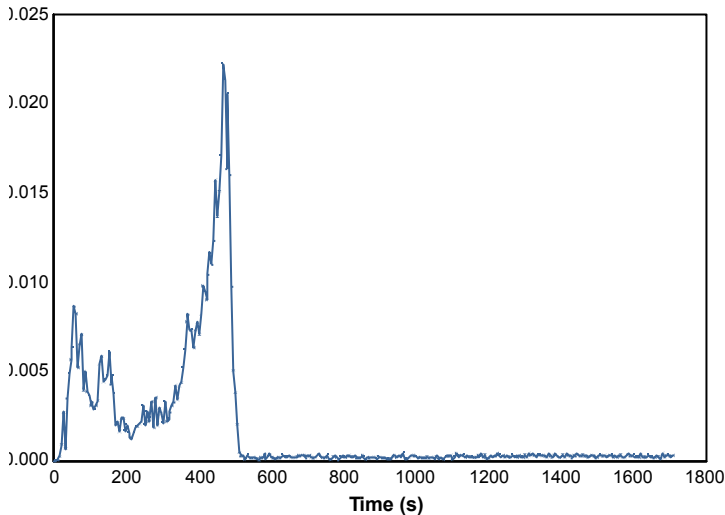
Heat release rate (kW/m²)



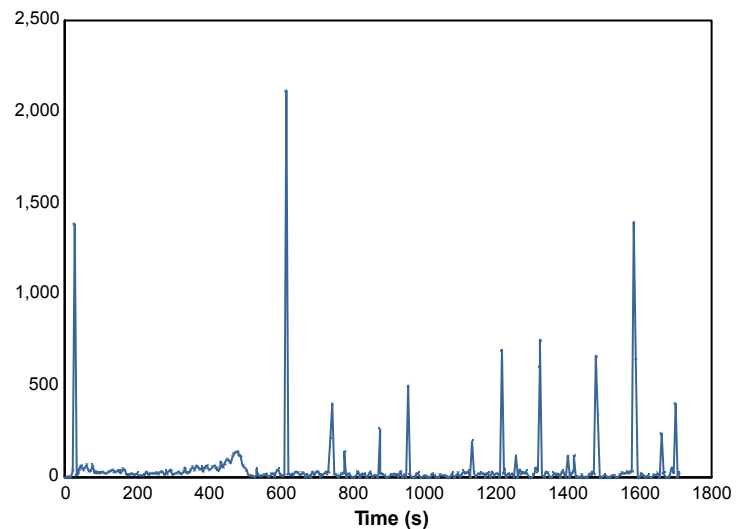
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



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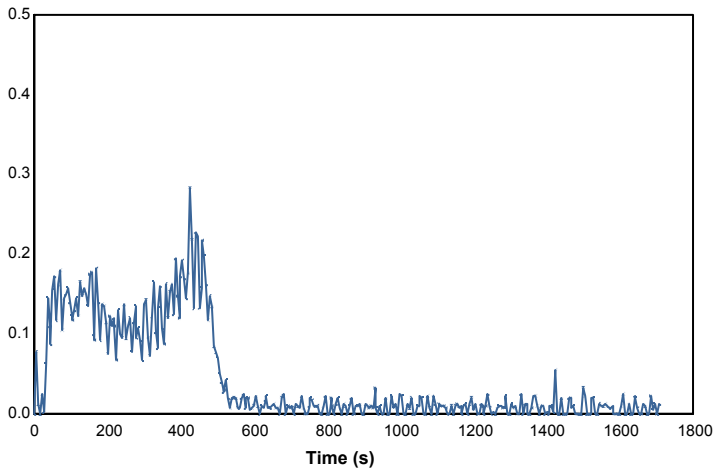
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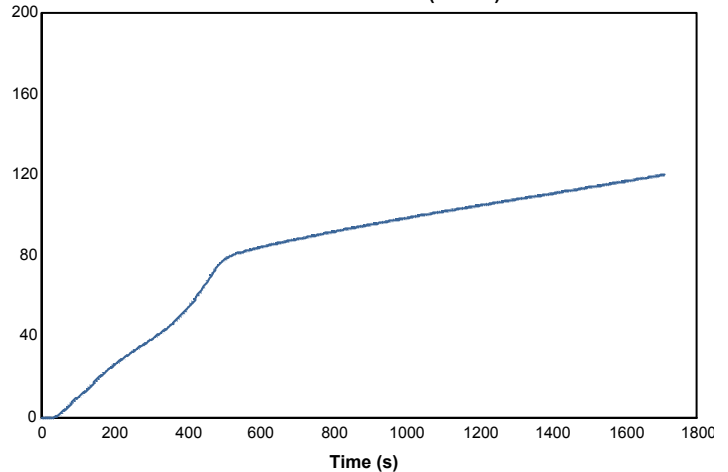
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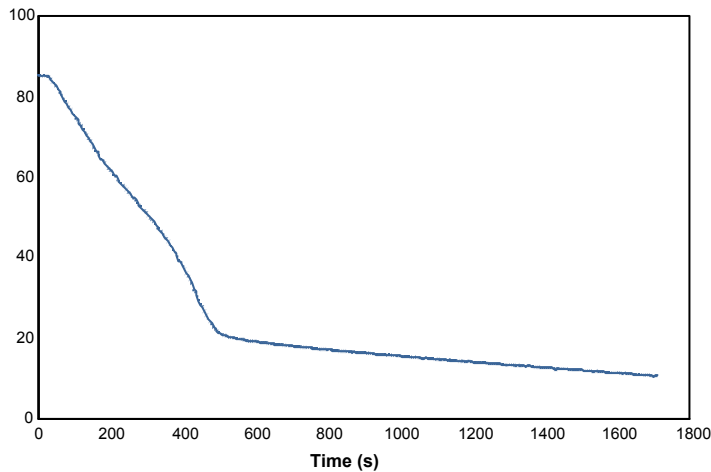
Mass loss rate (g/s)



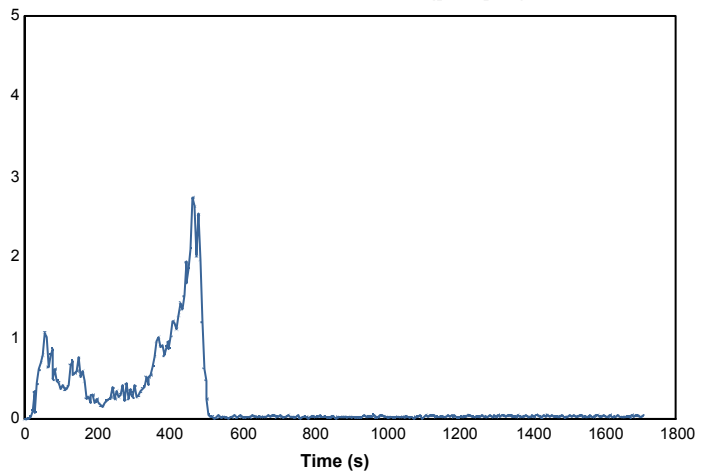
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



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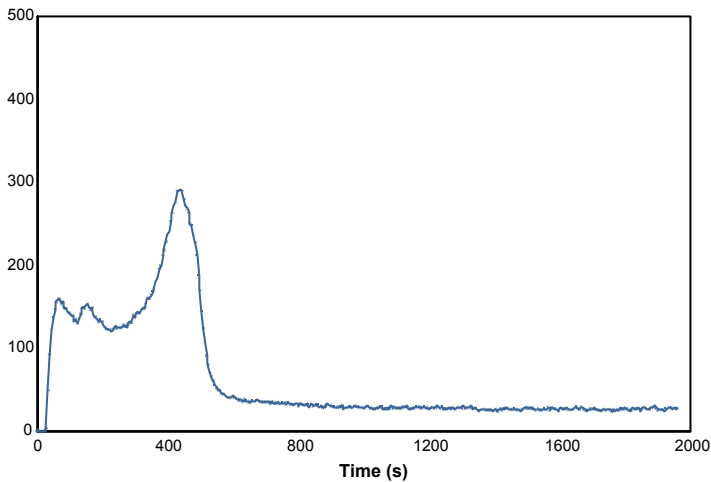
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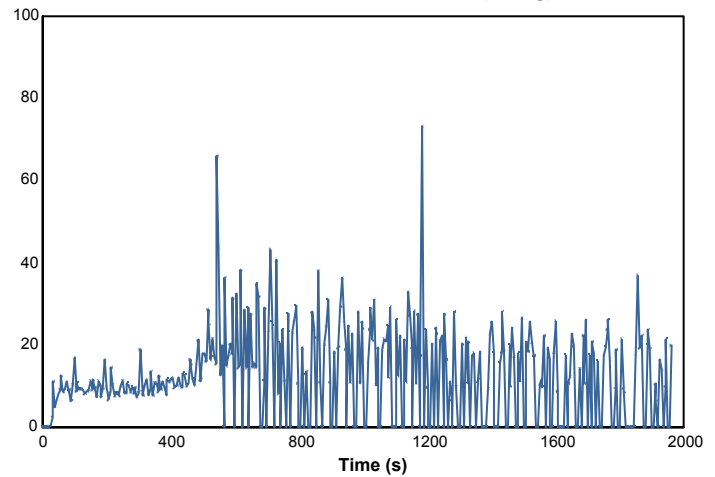
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Specimen : 3

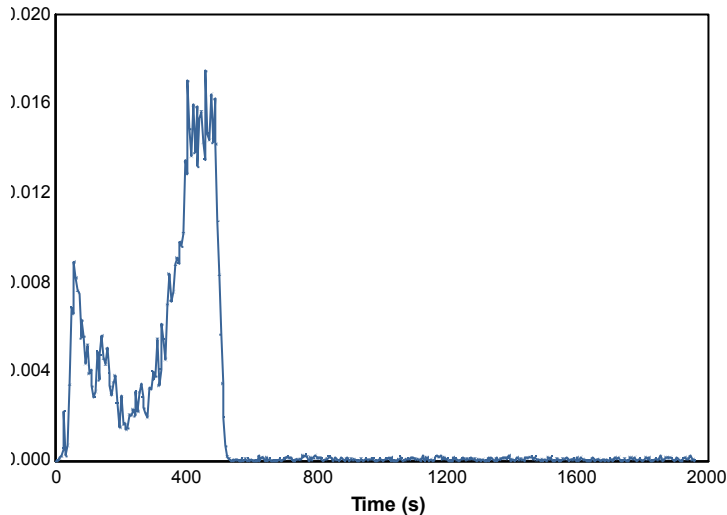
Heat release rate (kW/m²)



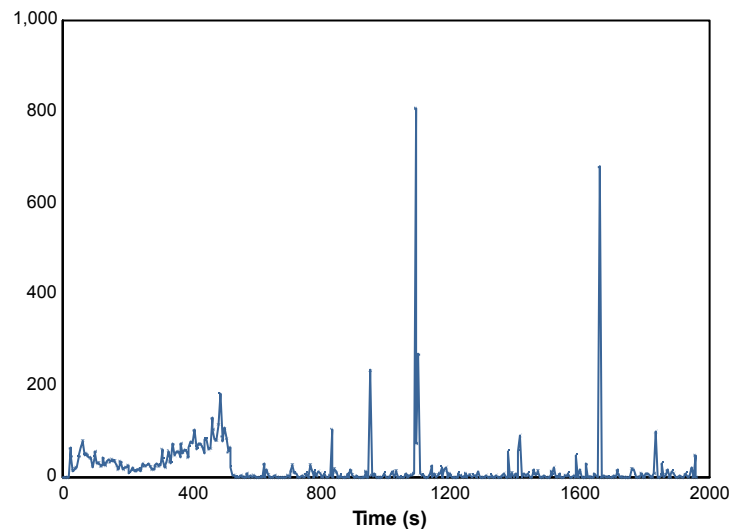
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



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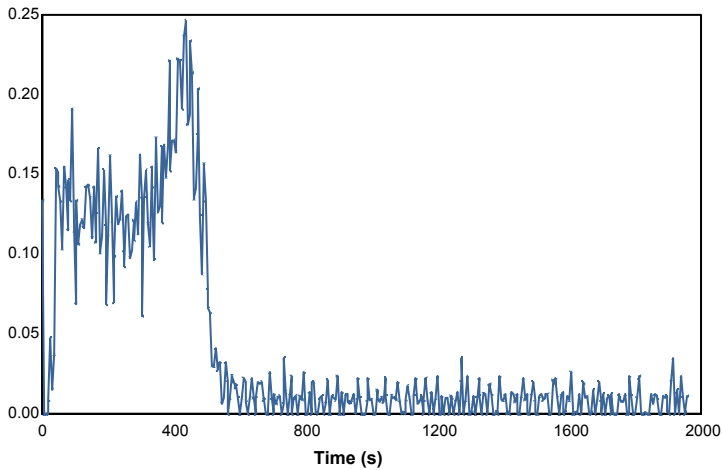
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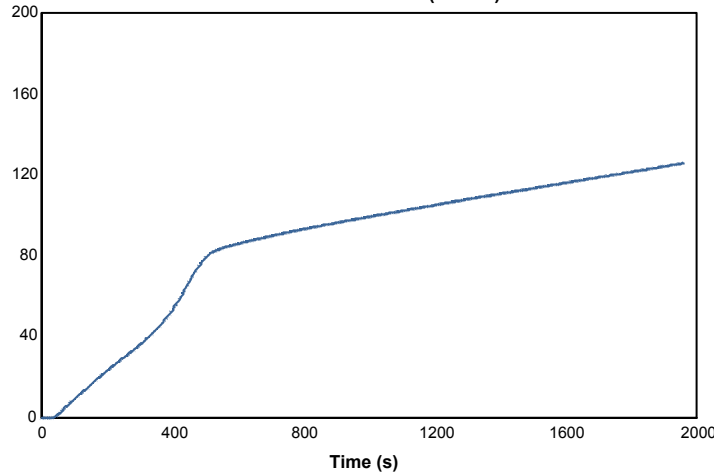
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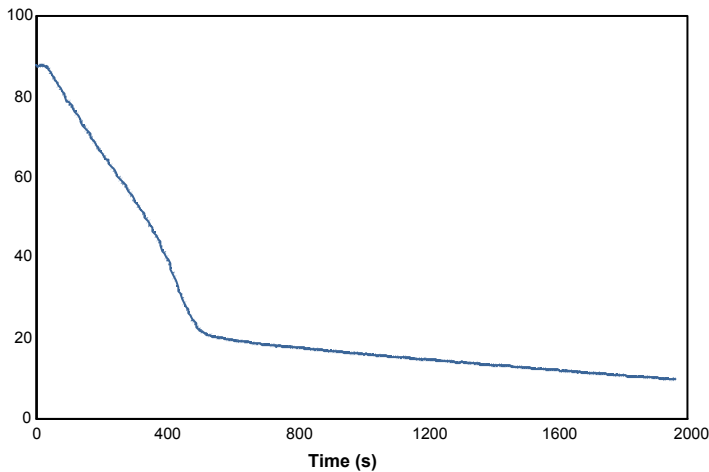
Mass loss rate (g/s)



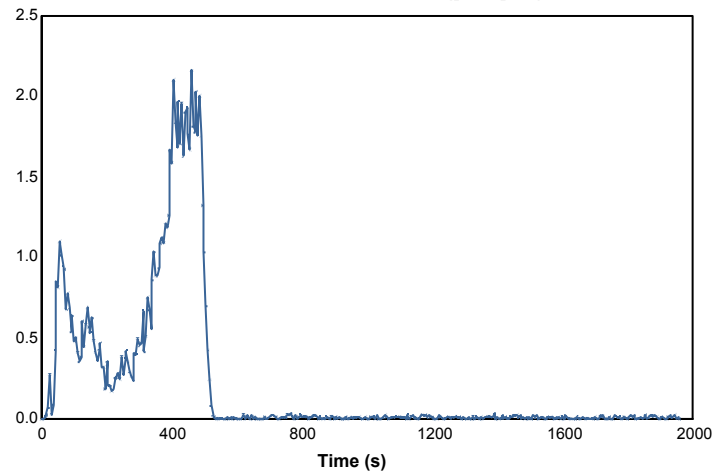
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



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