

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 : Knotwood Pty Ltd
2/63 Burnside Road
Stapylton QLD 4207

Test Number : 19-000597
Issue Date : 07/02/2019
Print Date : 8/02/2019

Sample Description Clients Ref : "Knotwood"
Aluminium cladding with sublimated powder coat surface finish
End Use : Wall/Ceiling Linings
Nominal Composition : Aluminium, powder coated
Nominal Mass per Unit Area/Density : 9.69kg/m²
Nominal Thickness : 1.8mm

AS/NZS 3837-1998 Method of Test for Heat and Smoke Release Rates for Materials and Products using an Oxygen Consumption Calorimeter

Date Tested 07/02/2019
Operator AWTA Test Operator 1
Face Tested Brown Face

	Specimen				
	1	2	3	Mean	
Average Heat Release Rate	16.9	15.0	17.7	16.5	kW/m ²
Average Specific extinction area	84.8	45.6	98.5	76.3	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	94	172	100	122	sec
Test duration	276	355	284	305	sec
Peak heat release after ignition	95.6	60.2	107.7	87.8	kW/m ²
Average heat at 60 s	34.3	29.9	38.3	34.2	kW/m ²
Average heat at 180 s	17.0	15.0	17.9	16.7	kW/m ²
Average heat at 300 s	n/a	n/a	n/a	n/a	kW/m ²

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APPROVED SIGNATORY

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Total heat released	3.1	2.8	3.2	3.0	MJ/m ²
Average effective heat of combustion	6.4	4.7	12.1	7.7	MJ/kg
Initial thickness	7.8	7.8	7.8	7.8	mm
Initial mass	123.6	130.2	119.2	124.3	g
Mass at sustained flaming	123.1	123.9	118.8	122.0	g
Mass remaining	119.3	124.8	116.7	120.3	g
Mass percentage pyrolysed	3.5	4.2	2.1	3.2	%
Mass loss	0.5	0.6	0.3	0.5	kg/m ²
Average rate of mass loss	2.6	3.2	1.3	2.4	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.

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

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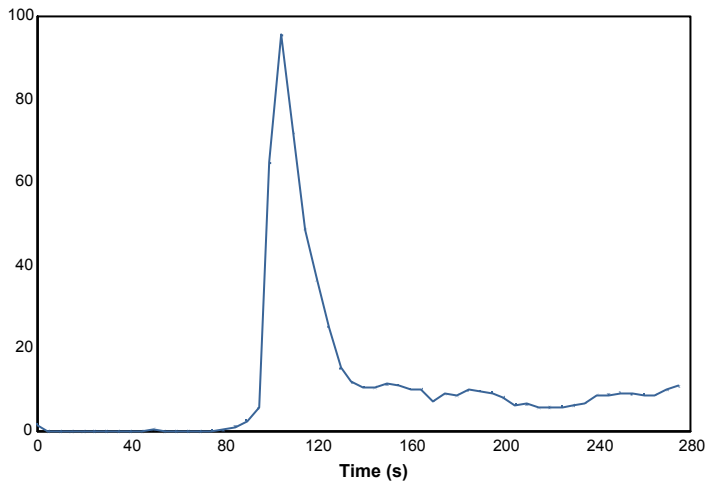
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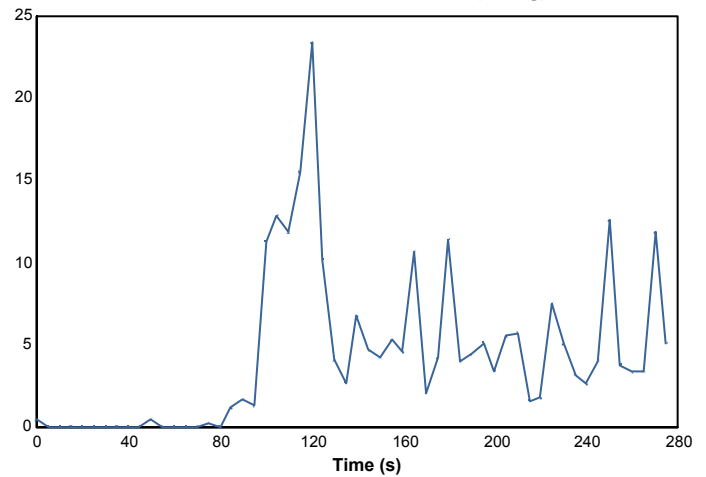
Test Number : 19-000597
Issue Date : 07/02/2019
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Specimen : 1

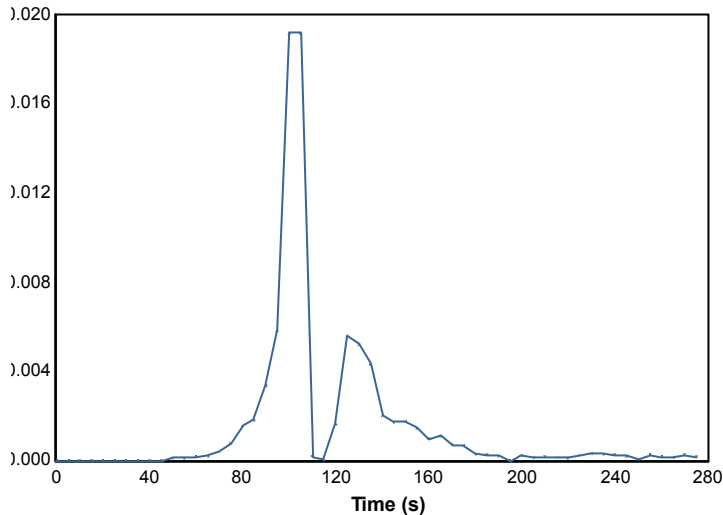
Heat release rate (kW/m²)



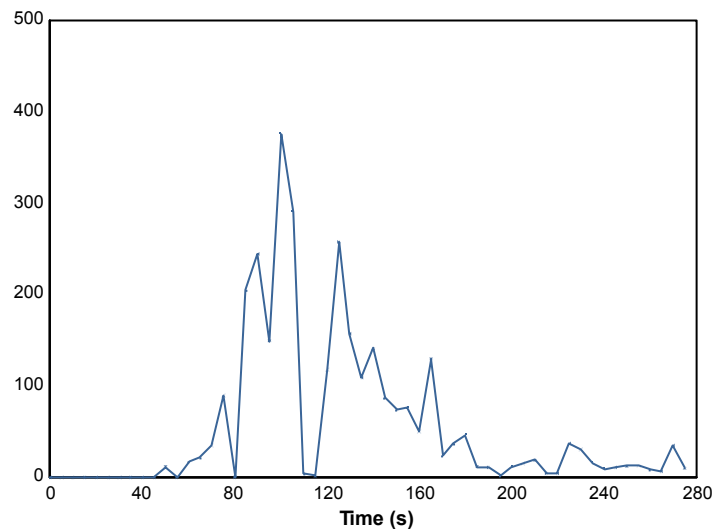
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



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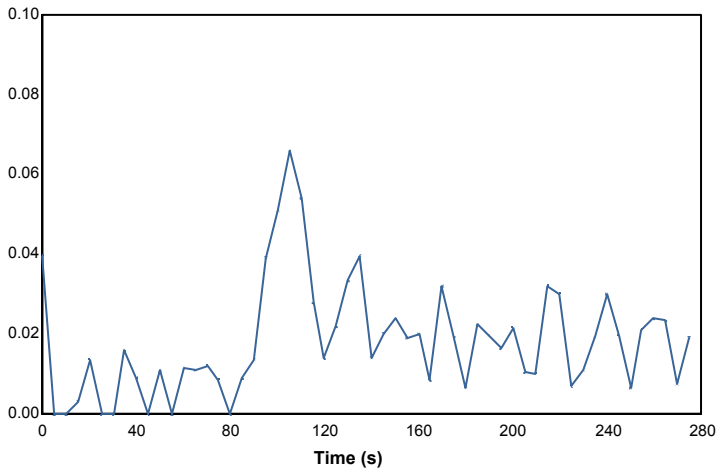
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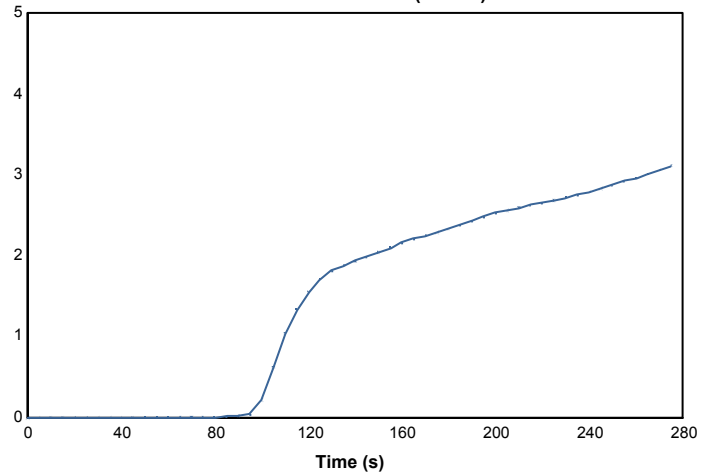
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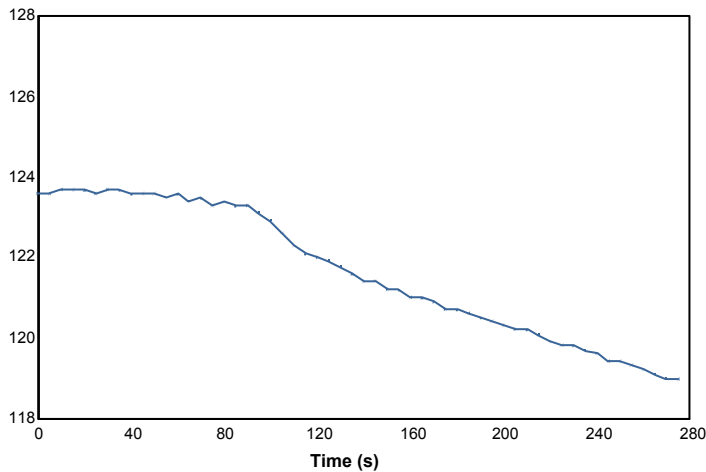
Mass loss rate (g/s)



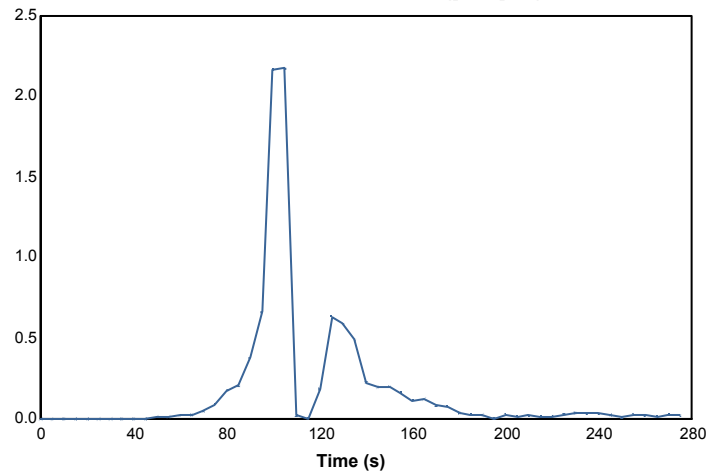
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s)/m²)



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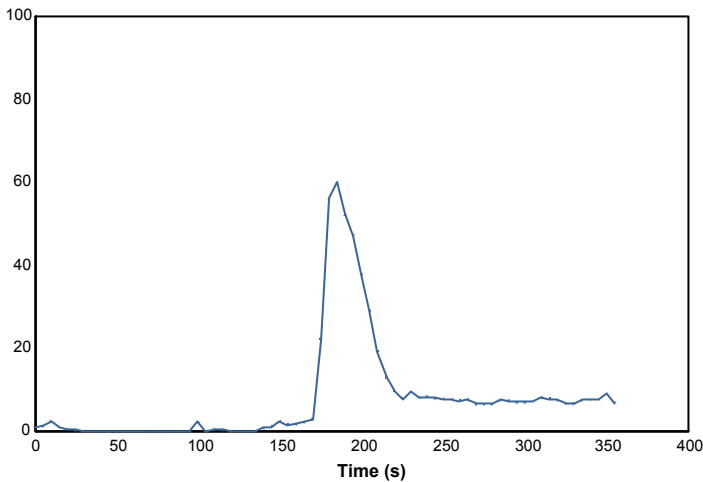
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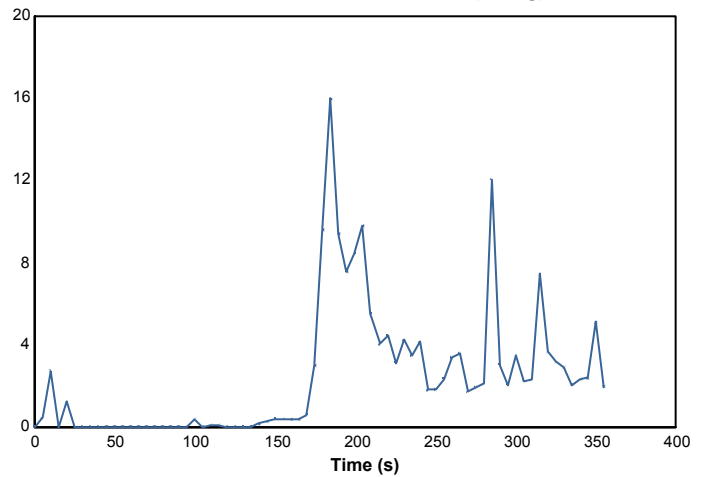
Test Number : 19-000597
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Print Date : 8/02/2019

Specimen : 2

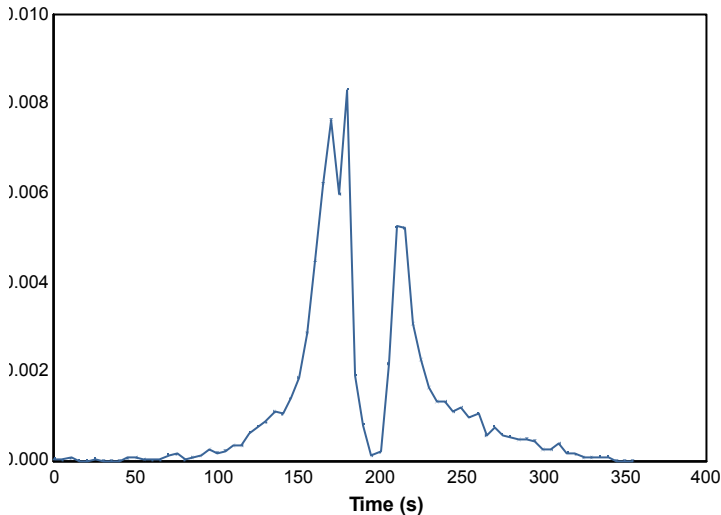
Heat release rate (kW/m²)



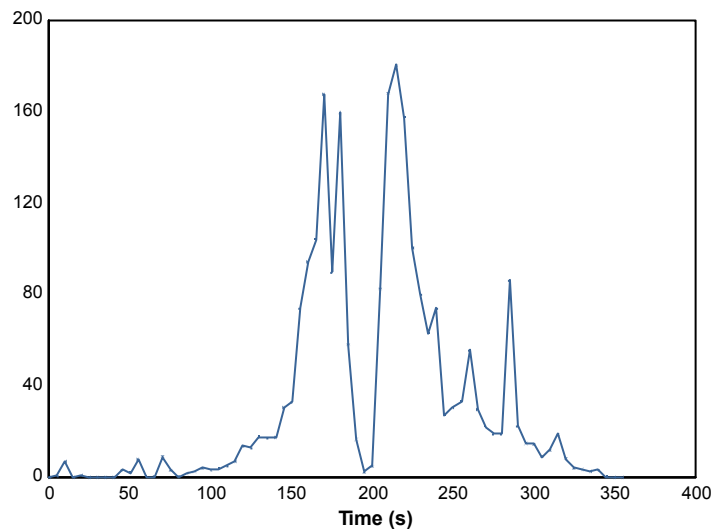
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



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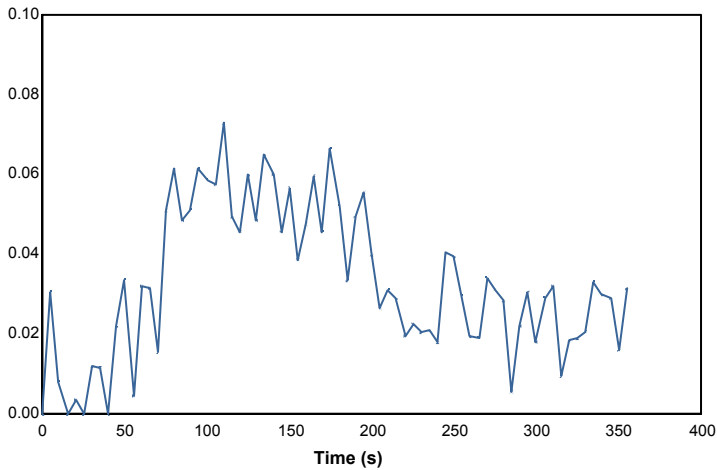
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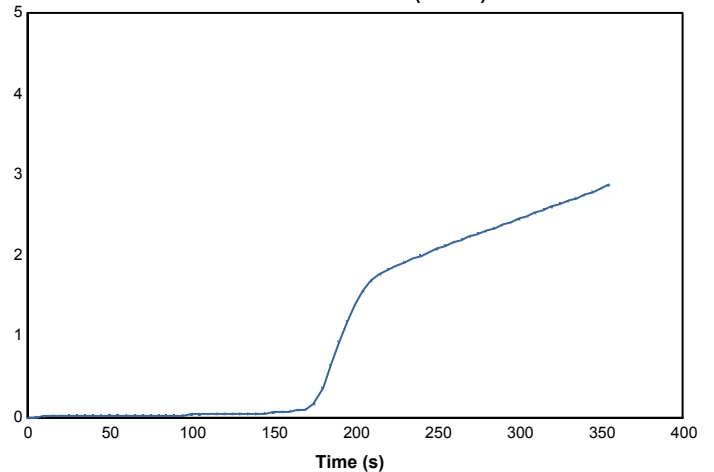
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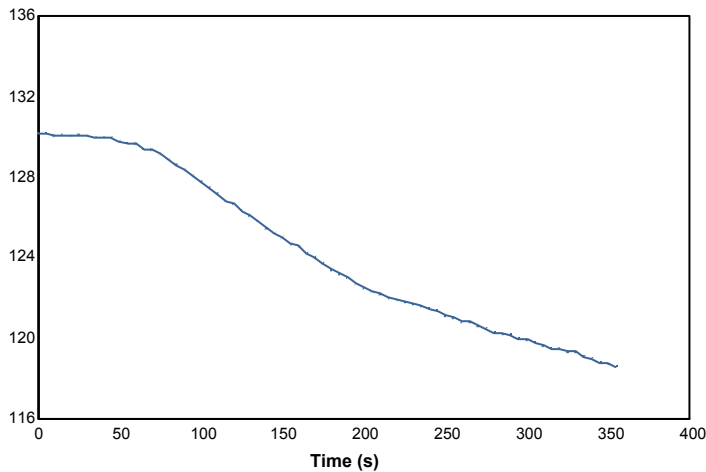
Mass loss rate (g/s)



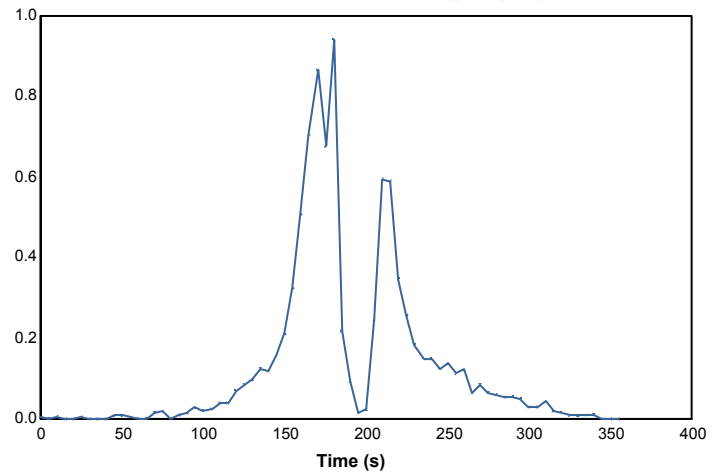
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s]/m²)



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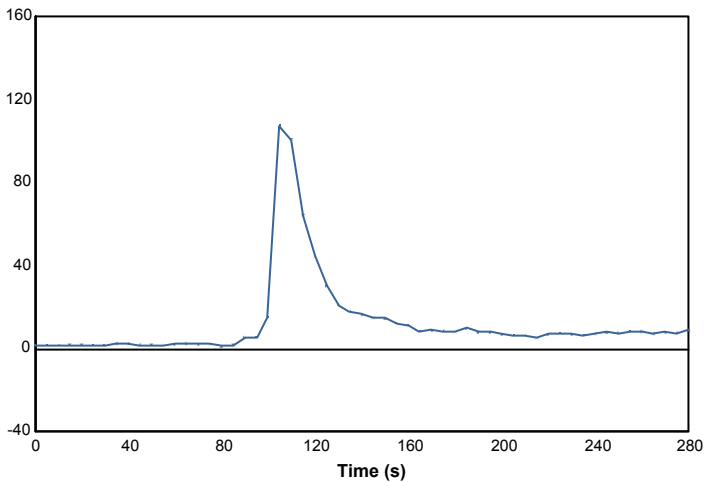
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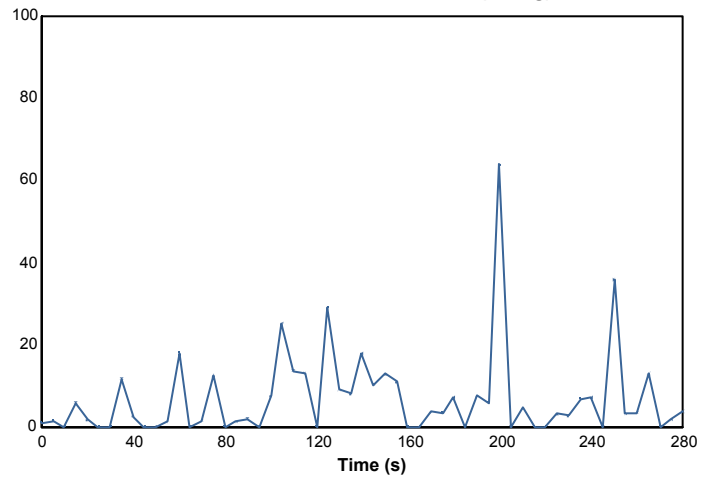
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Specimen : 3

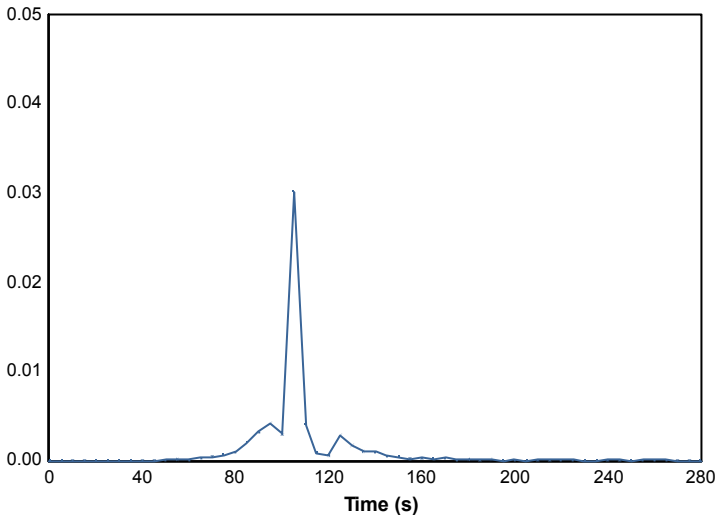
Heat release rate (kW/m²)



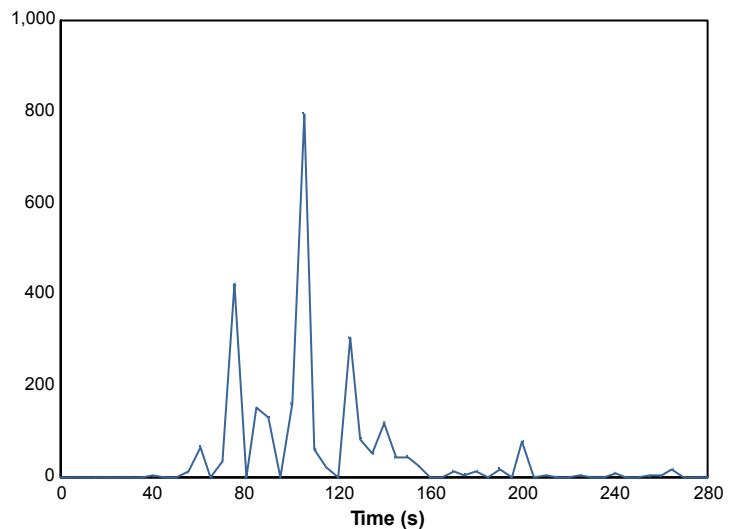
Effective heat of combustion (MJ/kg)



Smoke production rate ([m²/s])



Specific extinction area (m²/kg)



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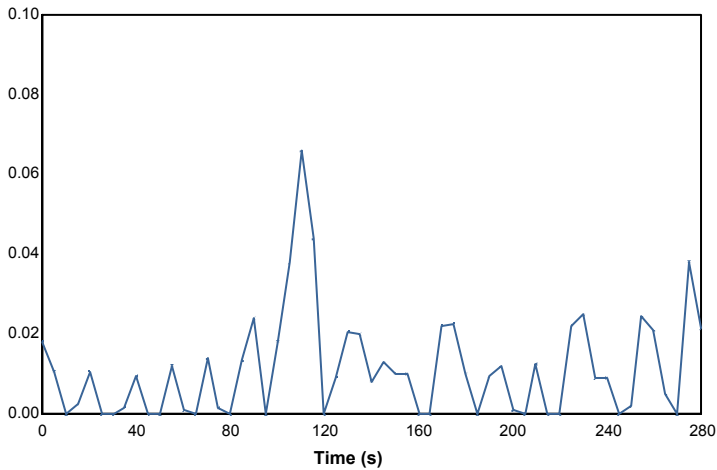
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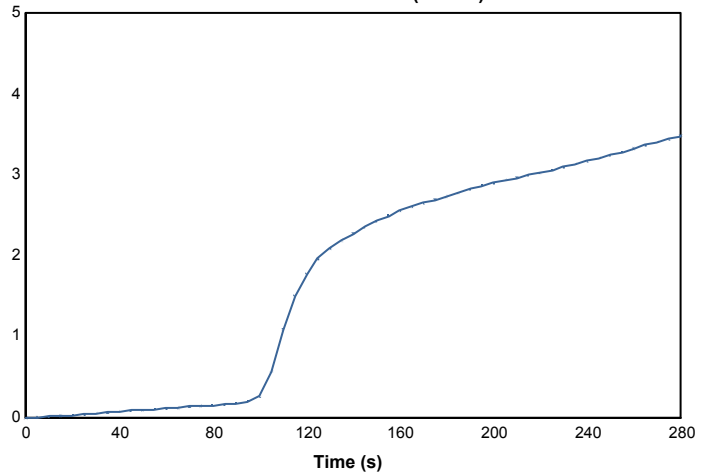
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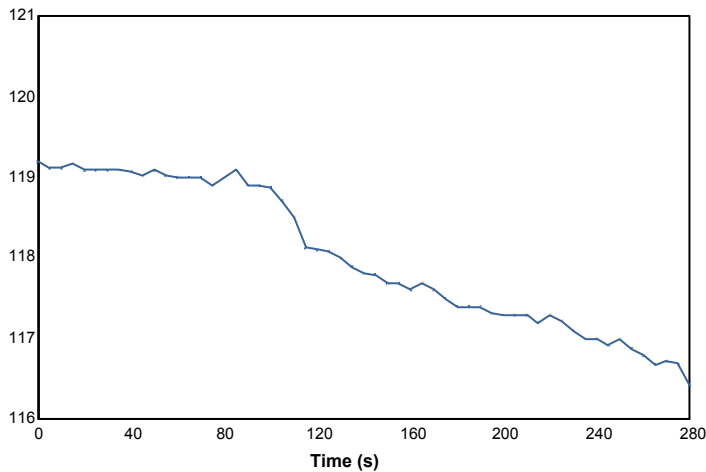
Mass loss rate (g/s)



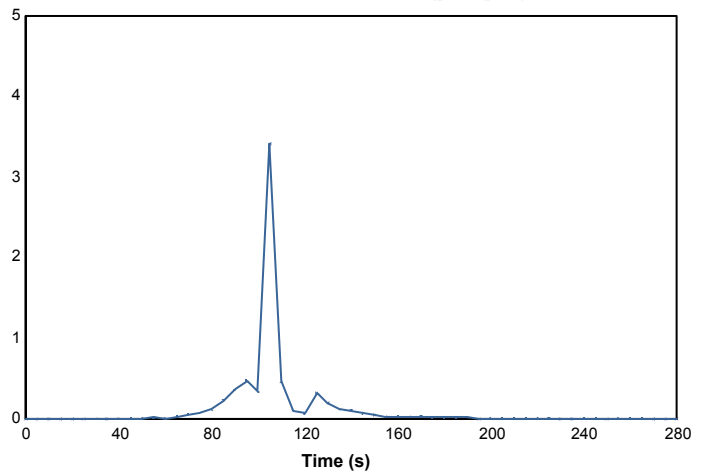
Total heat released (MJ/m²)



Mass (g)



Rate of smoke release ([m²/s)/m²)



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