

**No. 1272392.0**

(Please quote this number in all correspondence)

CLIENT:  
At Work  
PO Box 37 378  
Parnell, Auckland

SAMPLE RECEIVED FROM:  
At Work

Date Received: 19.3.19

SAMPLE DESCRIPTION:  
Blue/green woven fabric – Armadillo  
Nominal Composition – 79% Wool 11% Polyamide 10% Flax  
Nominal Weight – 515g per lineal metre  
End Use – Upholstery & Screen Use

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**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)**

Note: This test was sub-contracted (test number 19-001519).

	Specimens			
	1	2	3	Mean
Average Heat Release	13.7	13.6	14.6	14.0 kW/m <sup>2</sup>
Average Specific Extinction Area	30.2	73.1	66.4	56.6 m <sup>2</sup> /kg
Group Number Classification				3
(In Accordance with the New Zealand Building Code Verification Method C/VM2 Appendix A)				


Test Orientation: Horizontal

	Specimens			
	1	2	3	Mean
Irradiance	50	50	50	50 kW/m <sup>2</sup>
Exhaust Flow Rate	0.024	0.024	0.024	0.024 m <sup>3</sup> /sec.
Time to Sustained Flaming	17	15	19	17 sec.
Test Duration	1817	1815	1819	1817 sec.
Peak Heat Release After Ignition	196.4	200.2	219.5	205.4 kW/m <sup>2</sup>
Average Heat at 180 s	51.5	55.6	57.2	54.8 kW/m <sup>2</sup>
Average Heat at 300 s	37.0	41.4	43.8	40.7 kW/m <sup>2</sup>
Total Heat Released	24.7	24.5	27.0	25.4 MJ/m <sup>2</sup>
Ave. Effective Heat of Combustion	9.5	23.2	27.7	20.1 MJ/kg
Initial Thickness	7	7	7	7 mm
Initial Mass	96.5	74.2	73.6	81.4 g
Mass at Sustained Flaming	96.3	73.9	73.0	81.1 g
Mass Remaining	75.5	65.7	65.6	68.9 g
Mass Loss	2593.3	1055.4	990.4	1546.4 g/m <sup>2</sup>
Average Rate of Mass Loss	1.4	0.6	0.5	0.8 g/m <sup>2</sup> .s

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Signatory

  
C Judan  
Signatory

08/05/2019

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Total Smoke Production (non-flaming phase)	2.4	4.2	5.5	4.0 m <sup>2</sup> /m <sup>2</sup>
Total Smoke Production (flaming phase)	109.8	77.3	71.8	86.3 m <sup>2</sup> /m <sup>2</sup>
Total Smoke Production (non flaming & flaming phase)	112.2	81.5	77.3	90.3 m <sup>2</sup> /m <sup>2</sup>
Specimen Surface Area	0.00810	0.00810	0.00810	-
C-Factor (Calibration Constant)	0.03983	0.03983	0.03983	-

Additional Observation: 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 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.

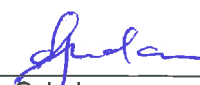
Tests were conducted with a wire grid placed over the sample during testing. This was done to contain intumescent sample within the sample holder.

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

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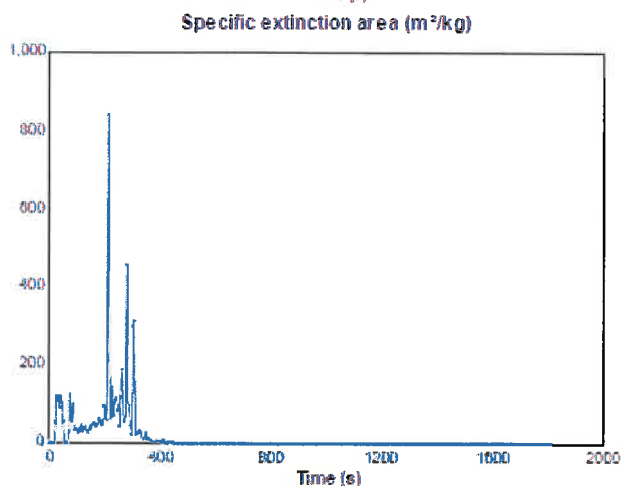
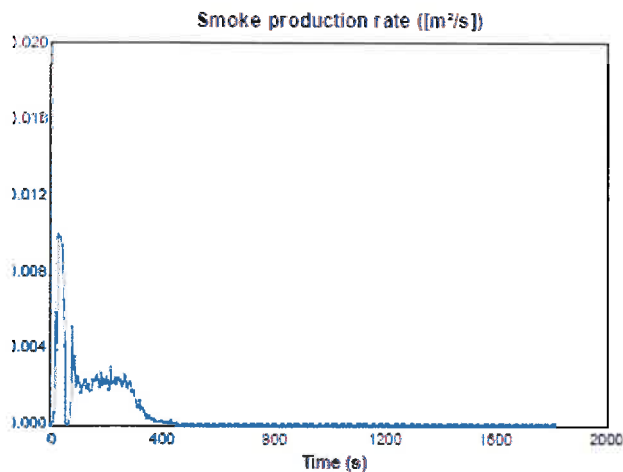
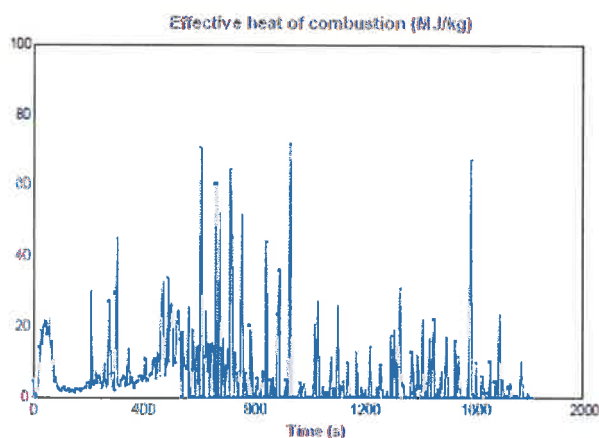
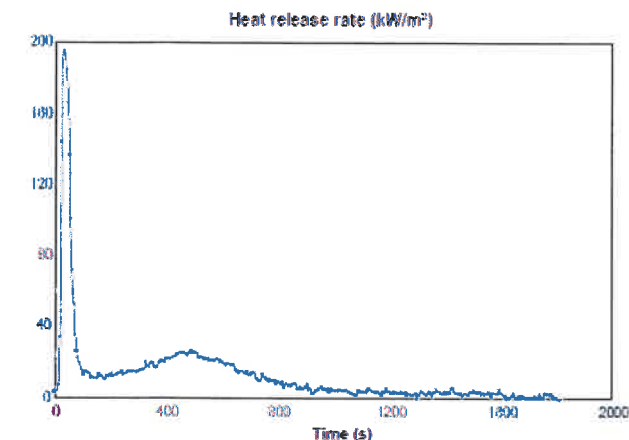
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Specimen : 1



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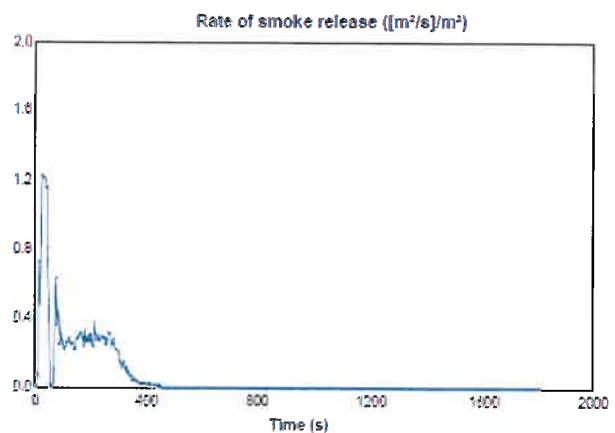
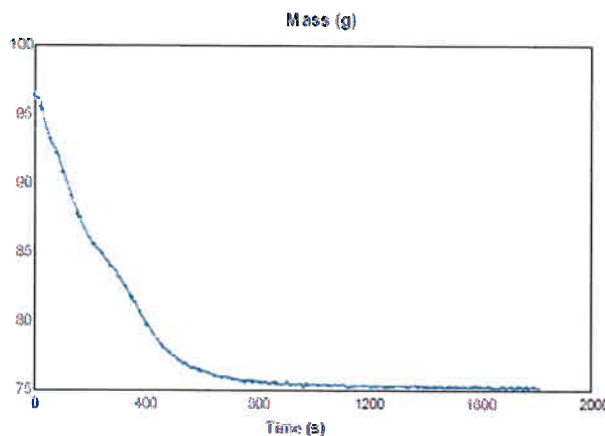
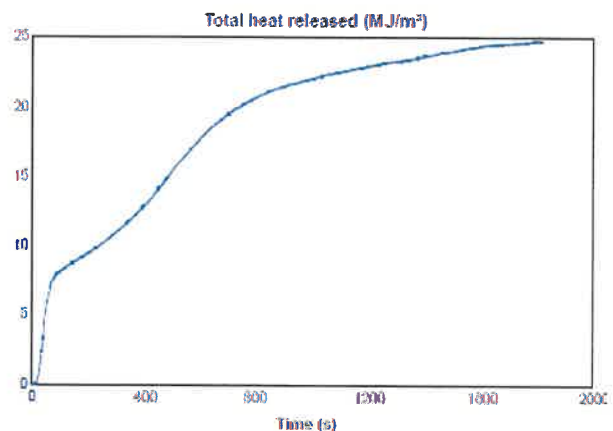
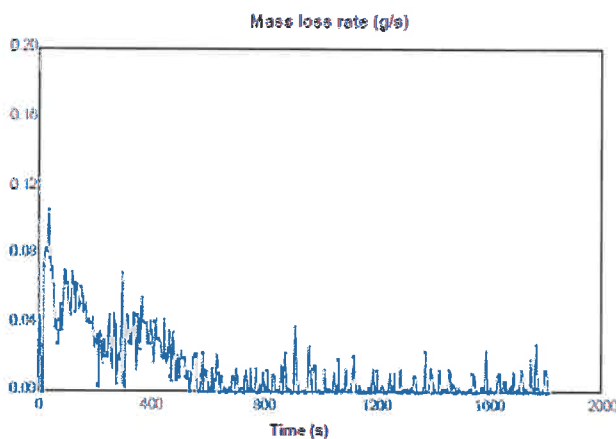
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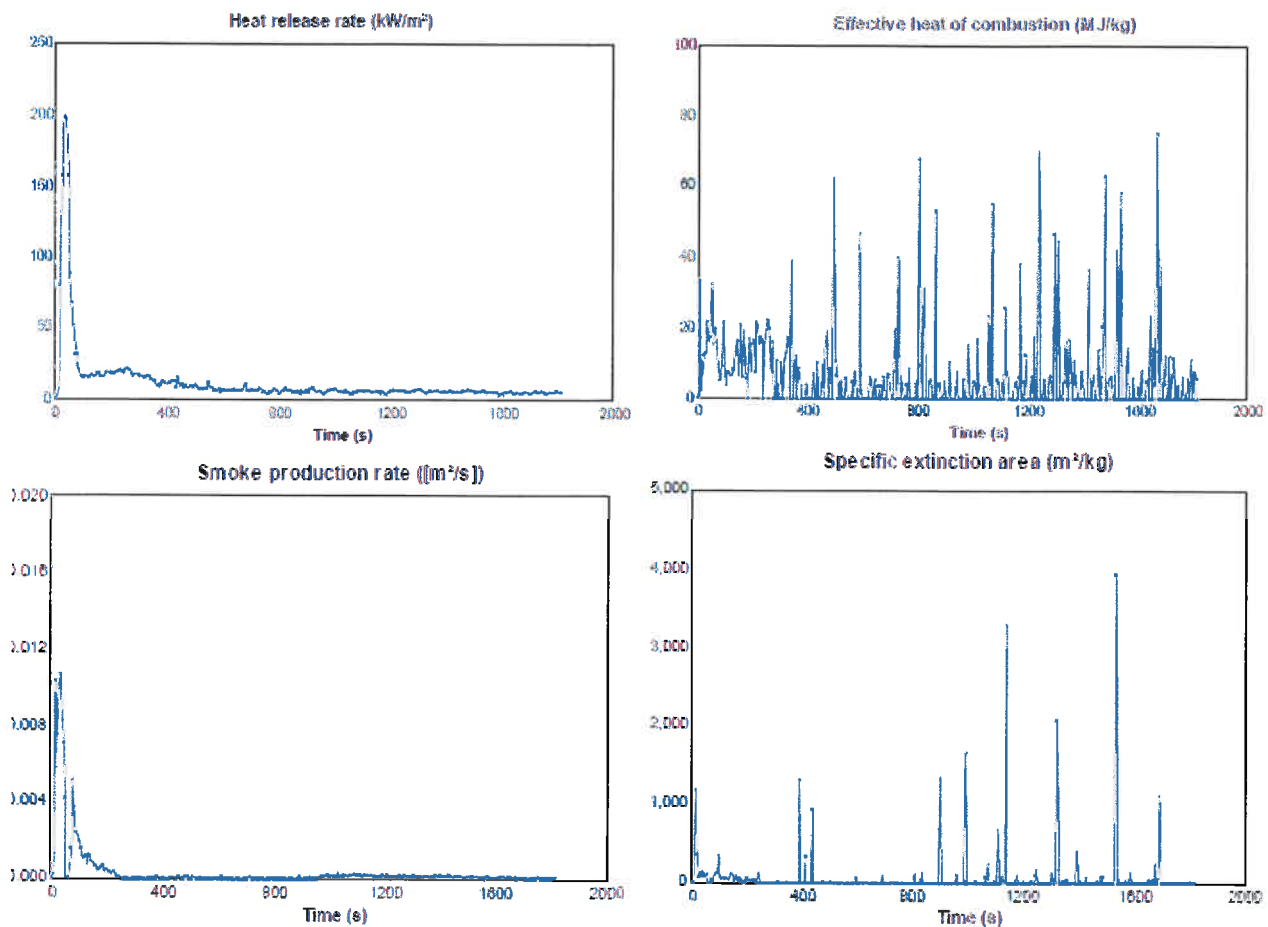
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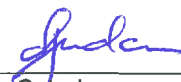
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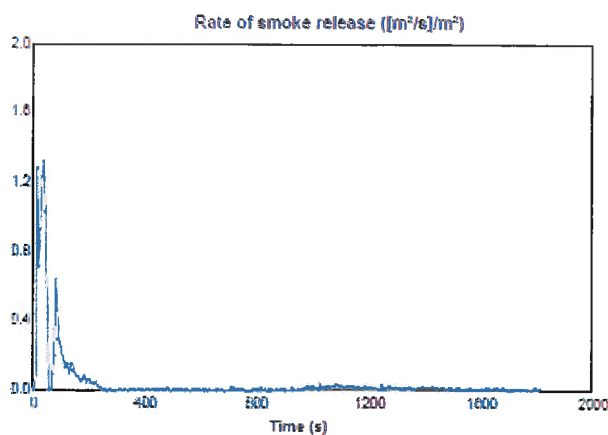
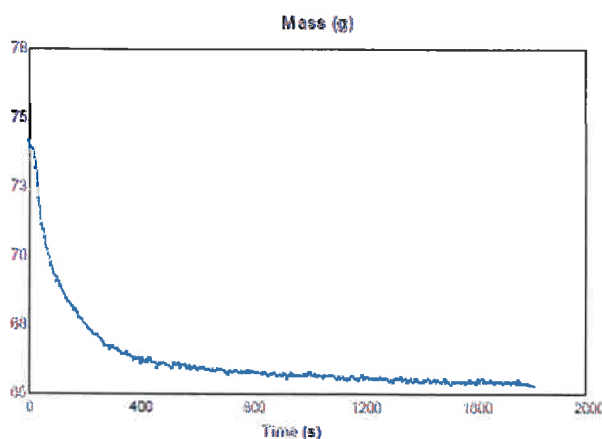
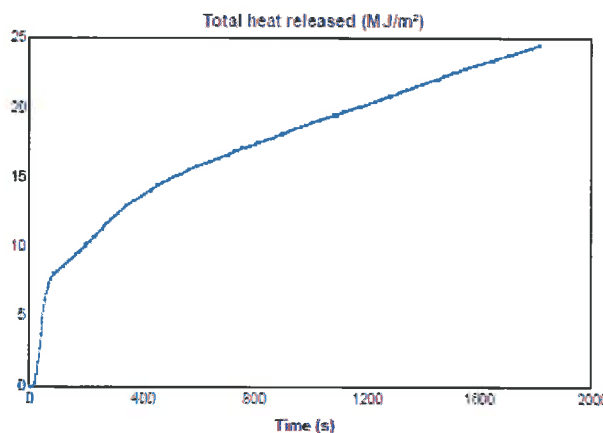
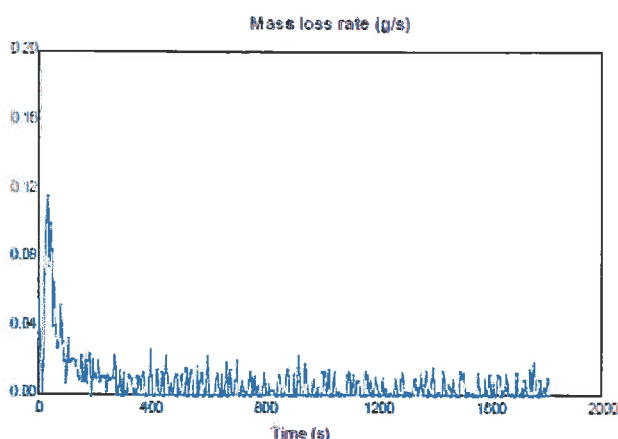
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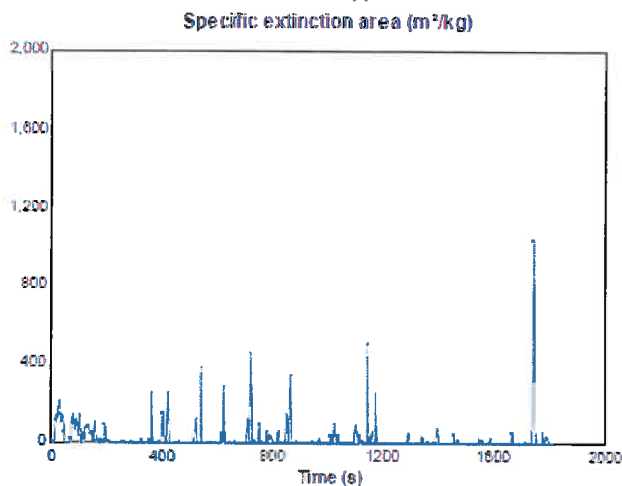
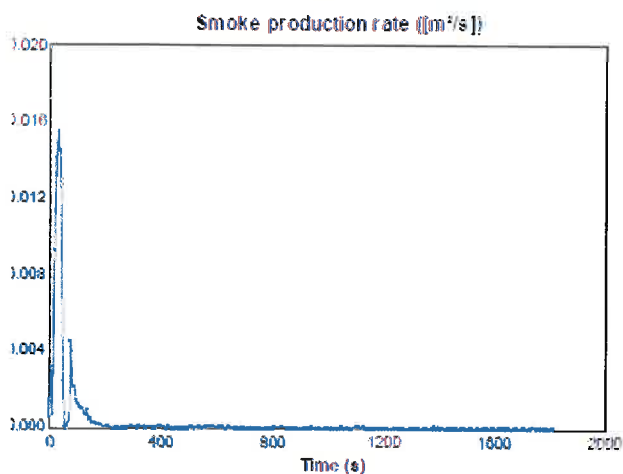
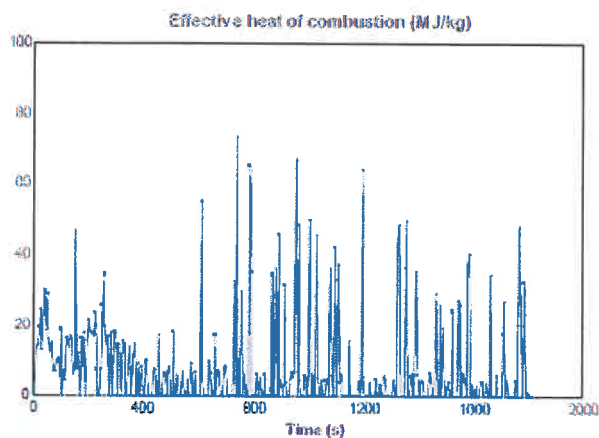
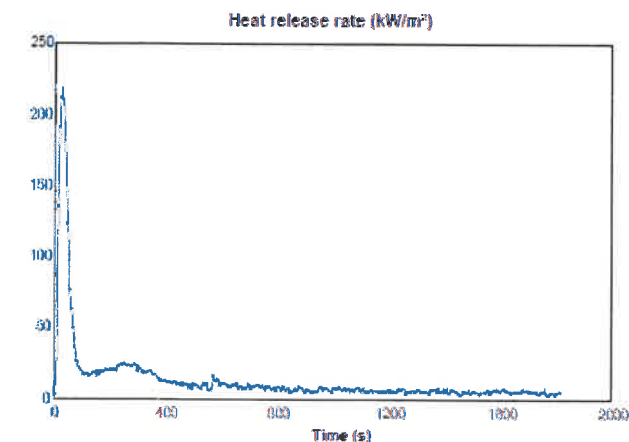
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Specimen : 3



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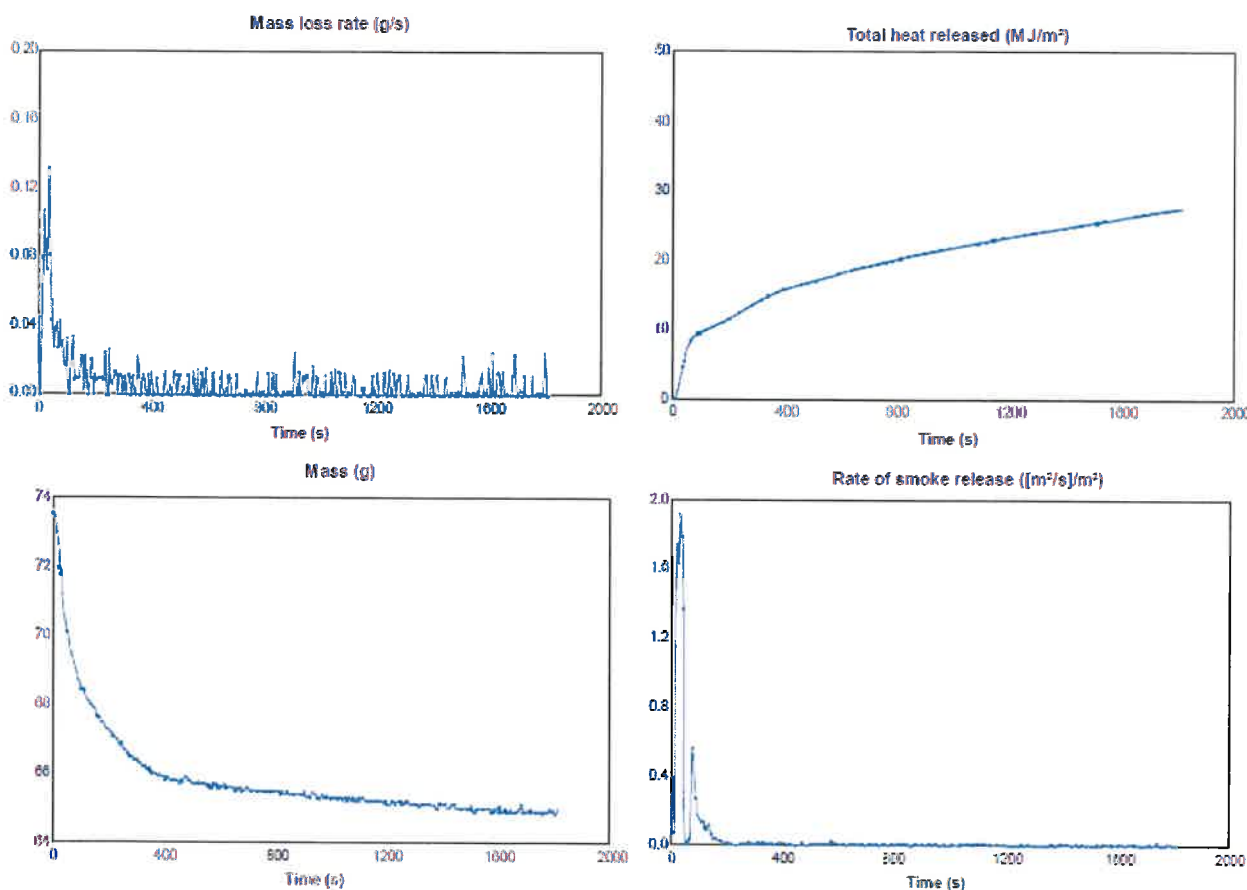
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