

TEST REPORT

REPORT NUMBER: 102677861MID-001
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EVALUATION CENTER

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RENDERED TO

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PRODUCT EVALUATED: Dekton ultracompact panels.

EVALUATION PROPERTY: ULC S135-04 standard test method for the determination of combustibility parameters the determination of combustibility parameters of building materials using an oxygen consumption calorimeter (cone calorimeter)

Report for compliance with the applicable requirements in accordance to the National Building Code of Canada for materials used in buildings that are required to be noncombustible.

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1 Table of Contents

1	Table of Contents	2
2	Introduction	3
3	Test Samples	3
3.1.	SAMPLE SELECTION	3
3.2.	SAMPLE AND ASSEMBLY DESCRIPTION.....	3
4	Testing and Evaluation Methods	3
4.1.	ULC C135-04.....	3
4.2.	Deviation from Standard Method.....	4
5	Testing and Evaluation Results	5
5.1.	RESULTS AND OBSERVATIONS.....	5
6	Conclusion	16

2 Introduction

Intertek has conducted testing for C&C North America Inc., on Dekton ultracompact panels to evaluate heat and smoke release rates. Testing was conducted following the standard methods of ULC S135-04 Standard Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter) in accordance with the National Building Code of Canada for materials used in buildings that are required to be noncombustible. The evaluation began July 29, 2016 and was completed July 29, 2016.

3 Test Samples

3.1. SAMPLE SELECTION

Samples were received directly from the client. Samples were received at the Intertek Middleton Evaluation Center on July 22, 2016 in good condition.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

Sample name: Dekton ultracompact panels.

Sample description: Samples were cut to 100 +/- 1 mm by 100 +/-1 mm dimensions by the client.

Specimens were conditioned to moisture equilibrium (constant mass) at an ambient temperature of $23 \pm 3^{\circ}\text{C}$ and a relative humidity of $50 \pm 5\%$.

4 Testing and Evaluation Methods

4.1. ULC C135-04

This test method is based on the observation that, generally, the net heat of combustion is directly related to the amount of oxygen required for combustion. The relationship is that approximately 13100 kJ of heat are released per 1 kg of oxygen consumed. Specimens in the test are burned in ambient air conditions, while being subjected to a predetermined external heat flux, which is set to 50 kW/m^2 . The primary measurements are oxygen concentrations and exhaust gas flow rate. Additional measurements include the mass-loss rate of the specimen, the time to sustained flaming and smoke obscuration, or as required in the relevant material or performance standard.

The cold trap was checked and closed. The sorbents were replaced. The power was turned on to the cone heater and the exhaust blower. (Power to the oxygen analyzer, load cell, and pressure transducer is not to be turned off on a daily basis.) The exhaust flow was set to a rate of $0.024 \pm 0.002 \text{ m}^3/\text{s}$. (Under room temperature conditions, this corresponds to approximately 30 g/s). The required calibration procedures specified in Section 7 of ULC S135 were performed. The external ignition was positioned in the location appropriate to the orientation

being used. The radiation shield was positioned along with the specimen, in the appropriate holder. The holder must be at room temperature initially. The radiation shield was in place for a sufficient time to ensure stability of operation (load cell equilibrium). The radiation shield was removed and the data collection was initiated. The data collection intervals shall be 3 s or less. The external igniter was pushed into place and powered. The time when flashing or transitory flaming occurred was recorded; if sustained flaming occurred, the time was recorded, and the spark igniter was removed. If the flame extinguished in less than 60 s after turning off the spark, the spark igniter was reinserted within 5 s and turned on.

Collect data for at least 15 minutes.

The total *heat release* per unit area shall be compared for the three specimens. If any of these readings differ by more than 10% from the average of the three readings, then a further set of three specimens shall be tested. In such cases, report the averages for peak heat release rate per unit area, total heat release per unit area, and total smoke extinction area using the set of six readings.

National Building Code of Canada:

Materials used in buildings that are required to be of noncombustible combustible that have been tested in conformance with ULC-S135, "Test for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter)," at a heat flux of 50 kW/m² where:

- The materials' total heat release is not more than 3 MJ/m²,
- the materials' average total smoke extinction area is not more than 1.0 m², and
- the test duration is extended beyond the time stipulated in the referenced standard until it is clear that there is no further release of heat or smoke.

4.2. Deviation from Standard Method

There were no deviations from the standard.

5 Testing and Evaluation Results

5.1. RESULTS AND OBSERVATIONS

Sample description 102677861MID-001 Consentino Dekton
Material name/ID 102677861MID-001 Consentino Dekton

Specimen information

E	13.1 MJ/kg	Specimen number	1	Conditioned?	Yes
Thickness	12 mm	Nominal duct flow rate	24 l/s	Temperature	23°C
Initial mass	281.1 g	Edge frame used?	Yes	RH	50%
Surface area	88.4 cm ²	Grid used?	No		
Heat flux	50 kW/m ²	Manufacturer			
Separation	25 mm	Sponsor			
Orientation	Horizontal				

Test

Standard used ULC S135
Date of test 29/07/2016
Time of test 08:54
Date of report 29/07/2016

Pre-test conditions

Ambient temperature 26.2°C
Ambient pressure 99.054 kPa
Relative humidity 53%

Test times

Time to ignition 511 s
Time to flameout 638 s
End of test criterion User entered
End of test time 900 s
(for calculations)

Apparatus specifications

C-factor 0.04401
Duct diameter 0.114 m
O₂ delay time 17 s
CO₂ delay time 17 s
CO delay time 17 s
OD corr. factor 1.0055

Initial conditions

Baseline ambient oxygen 20.570%
Baseline oxygen 20.953%
Baseline carbon dioxide 0.0444%
Mass at sustained flaming 281.0 g

Heat Release Results

THR (0-300) 0.03 MJ/m²
THR (0-600) 0.69 MJ/m²
THR (0-1200) -
Fuel load 0.03 MJ/kg

Test results (between 511 and 900 s)

			Mean	Peak	at time (s)
Total heat release	0.9 MJ/m ²	Heat release rate (kW/m ²)	1.20	11.17	541
Total oxygen consumed	0.6 g	Effective heat of comb. (MJ/kg)	5.90	67.66	629
Mass lost	0.7 g	Mass loss rate (g/s)	0.002	0.141	569
Average specific MLR	0.48 g/(s·m ²)	Specific extinction area (m ² /kg)	384.43	4612.82	635
Total smoke release	30.3 m ² /m ²	Carbon monoxide yield (kg/kg)	0.0412	11.5407	565
Total smoke production	0.3 m ²	Carbon dioxide yield (kg/kg)	0.89	297.80	565
MAHRE	1.4 kW/m ²				

Test averages

from ignition to ignition plus...	1 min	2 min	3 min	4 min	5 min	6 min	0 s - 907 s	0 s - 907 s
Heat release rate (kW/m ²)	6.92	6.94	4.51	2.92	1.98	1.33	-0.54	-0.54
Effective heat of comb. (MJ/kg)	11.35	16.58	12.29	10.23	8.71	6.23	-4.89	-4.89
Mass loss rate (g/s)	0.006	0.003	0.003	0.002	0.002	0.002	0.001	0.001
Specific extinction area (m ² /kg)	74.26	127.48	247.83	331.20	393.08	381.66	383.27	383.27
Carbon monoxide yield (kg/kg)	0.0403	0.0552	0.0453	0.0432	0.0444	0.0409	0.0214	0.0214
Carbon dioxide yield (kg/kg)	1.19	1.63	1.25	1.13	1.07	0.92	0.58	0.58

Smoke results

Total smoke release: non-flaming phase (0 s - 511 s) 12.7 m²/m²
Total smoke release: flaming phase (511 s - 900 s) 30.3 m²/m²
Total smoke release: whole test (0 s - 900 s) 43.1 m²/m²

Sample description 102677861MID-001 Consentino Dekton
Material name/ID 102677861MID-001 Consentino Dekton

Specimen information

E	13.1 MJ/kg	Specimen number	2	Conditioned?	Yes
Thickness	12 mm	Nominal duct flow rate	24 l/s	Temperature	23°C
Initial mass	281.3 g	Edge frame used?	Yes	RH	50%
Surface area	88.4 cm ²	Grid used?	No		
Heat flux	50 kW/m ²	Manufacturer			
Separation	25 mm	Sponsor			
Orientation	Horizontal				

Test

Standard used ULC S135
Date of test 29/07/2016
Time of test 09:18
Date of report 29/07/2016

Pre-test conditions

Ambient temperature 25.5°C
Ambient pressure 99.052 kPa
Relative humidity 56%

Test times

Time to ignition 539 s
Time to flameout 667 s
End of test criterion User entered
End of test time 900 s
(for calculations)

Apparatus specifications

C-factor 0.04401
Duct diameter 0.114 m
O₂ delay time 17 s
CO₂ delay time 17 s
CO delay time 17 s
OD corr. factor 1.0055

Initial conditions

Baseline ambient oxygen 20.560%
Baseline oxygen 20.949%
Baseline carbon dioxide 0.0454%
Mass at sustained flaming 280.7 g

Heat Release Results

THR (0-300) 0.08 MJ/m²
THR (0-600) 0.75 MJ/m²
THR (0-1200) -
Fuel load 0.04 MJ/kg

Test results (between 539 and 900 s)

			Mean	Peak	at time (s)
Total heat release	1.3 MJ/m ²	Heat release rate (kW/m ²)	2.75	14.74	601
Total oxygen consumed	0.9 g	Effective heat of comb. (MJ/kg)	16.93	75.72	622
Mass lost	0.5 g	Mass loss rate (g/s)	0.001	0.148	539
Average specific MLR	0.43 g/(s·m ²)	Specific extinction area (m ² /kg)	-149.59	1354.73	721
Total smoke release	4.5 m ² /m ²	Carbon monoxide yield (kg/kg)	0.0621	12.5678	621
Total smoke production	0.0 m ²	Carbon dioxide yield (kg/kg)	2.01	401.12	621
MAHRE	2.0 kW/m ²				

Test averages

from ignition to ignition plus...	1 min	2 min	3 min	4 min	5 min	6 min	0 s - 903 s	0 s - 903 s
Heat release rate (kW/m ²)	10.05	9.58	6.64	4.67	3.57	2.77	0.44	0.44
Effective heat of comb. (MJ/kg)	16.24	23.89	23.99	19.12	15.52	16.58	2.92	2.92
Mass loss rate (g/s)	0.005	0.003	0.002	0.002	0.002	0.001	0.001	0.001
Specific extinction area (m ² /kg)	-89.37	-138.59	-66.47	-57.69	-84.59	-145.28	-219.73	-219.73
Carbon monoxide yield (kg/kg)	0.0465	0.0713	0.0744	0.0630	0.0546	0.0607	0.0286	0.0286
Carbon dioxide yield (kg/kg)	1.58	2.22	2.28	1.97	1.68	1.96	0.93	0.93

Smoke results

Total smoke release: non-flaming phase (0 s - 539 s) 2.6 m²/m²
Total smoke release: flaming phase (539 s - 900 s) 4.5 m²/m²
Total smoke release: whole test (0 s - 900 s) 7.1 m²/m²

Sample description 102677861MID-001 Consentino Dekton
Material name/ID 102677861MID-001 Consentino Dekton

Specimen information

E	13.1 MJ/kg	Specimen number	3	Conditioned?	Yes
Thickness	12 mm	Nominal duct flow rate	24 l/s	Temperature	23°C
Initial mass	281.2 g	Edge frame used?	Yes	RH	50%
Surface area	88.4 cm ²	Grid used?	No		
Heat flux	50 kW/m ²	Manufacturer			
Separation	25 mm	Sponsor			
Orientation	Horizontal				

Test

Standard used ULC S135
Date of test 29/07/2016
Time of test 09:41
Date of report 29/07/2016

Pre-test conditions

Ambient temperature 26.5°C
Ambient pressure 99.085 kPa
Relative humidity 53%

Test times

Time to ignition 559 s
Time to flameout 627 s
End of test criterion User entered
End of test time 900 s
(for calculations)

Apparatus specifications

C-factor 0.04401
Duct diameter 0.114 m
O₂ delay time 17 s
CO₂ delay time 17 s
CO delay time 17 s
OD corr. factor 1.0055

Initial conditions

Baseline ambient oxygen 20.559%
Baseline oxygen 20.949%
Baseline carbon dioxide 0.0456%
Mass at sustained flaming 281.1 g

Heat Release Results

THR (0-300) 0.22 MJ/m²
THR (0-600) 0.55 MJ/m²
THR (0-1200) -
Fuel load 0.02 MJ/kg

Test results (between 559 and 900 s)

			Mean	Peak	at time (s)
Total heat release	0.5 MJ/m ²	Heat release rate (kW/m ²)	0.91	9.31	592
Total oxygen consumed	0.3 g	Effective heat of comb. (MJ/kg)	4.70	78.76	686
Mass lost	0.6 g	Mass loss rate (g/s)	0.002	0.199	683
Average specific MLR	0.75 g/(s·m ²)	Specific extinction area (m ² /kg)	691.37	4698.40	636
Total smoke release	45.4 m ² /m ²	Carbon monoxide yield (kg/kg)	0.0325	1.0334	585
Total smoke production	0.4 m ²	Carbon dioxide yield (kg/kg)	0.04	18.87	585
MAHRE	1.3 kW/m ²				

Test averages

from ignition to ignition plus...	1 min	2 min	3 min	4 min	5 min	6 min	0 s - 904 s	0 s - 904 s
Heat release rate (kW/m ²)	4.61	2.81	1.63	1.04	0.92	-	0.38	0.38
Effective heat of comb. (MJ/kg)	4.94	17.14	3.95	4.51	4.07	-	4.37	4.37
Mass loss rate (g/s)	0.008	0.001	0.004	0.002	0.002	-	0.001	0.001
Specific extinction area (m ² /kg)	120.16	861.04	357.71	620.22	609.81	-	1013.56	1013.56
Carbon monoxide yield (kg/kg)	0.0204	0.0664	0.0194	0.0283	0.0268	-	0.0221	0.0221
Carbon dioxide yield (kg/kg)	0.36	0.89	0.18	0.17	0.08	-	-0.20	-0.20

Smoke results

Total smoke release: non-flaming phase (0 s - 559 s) 33.7 m²/m²
Total smoke release: flaming phase (559 s - 900 s) 45.4 m²/m²
Total smoke release: whole test (0 s - 900 s) 79.1 m²/m²

Sample description 102677861MID-001 Consentino Dekton
Material name/ID 102677861MID-001 Consentino Dekton

Specimen information

E 13.1 MJ/kg
Thickness 12 mm
Initial mass 281.6 g
Surface area 88.4 cm²
Heat flux 50 kW/m²
Separation 25 mm
Orientation Horizontal

Specimen number 4
Nominal duct flow rate 24 l/s
Edge frame used? Yes
Grid used? No
Manufacturer
Sponsor

Conditioned? Yes
Temperature 23°C
RH 50%

Test

Standard used ULC S135
Date of test 29/07/2016
Time of test 10:05
Date of report 29/07/2016

Pre-test conditions

Ambient temperature 25.5°C
Ambient pressure 99.059 kPa
Relative humidity 56%

Test times

Time to ignition 489 s
Time to flameout 674 s
End of test criterion User entered
End of test time 900 s
(for calculations)

Apparatus specifications

C-factor 0.04401
Duct diameter 0.114 m
O₂ delay time 17 s
CO₂ delay time 17 s
CO delay time 17 s
OD corr. factor 1.0055

Initial conditions

Baseline ambient oxygen 20.558%
Baseline oxygen 20.947%
Baseline carbon dioxide 0.0431%
Mass at sustained flaming 281.3 g

Heat Release Results

THR (0-300) 0.03 MJ/m²
THR (0-600) 1.13 MJ/m²
THR (0-1200) -
Fuel load 0.05 MJ/kg

Test results (between 489 and 900 s)

		Mean	Peak	at time (s)
Total heat release	1.6 MJ/m ²	Heat release rate (kW/m ²)	2.91	15.24
Total oxygen consumed	1.1 g	Effective heat of comb. (MJ/kg)	14.81	68.33
Mass lost	0.7 g	Mass loss rate (g/s)	0.002	0.206
Average specific MLR	0.46 g/(s·m ²)	Specific extinction area (m ² /kg)	-91.33	1880.56
Total smoke release	4.1 m ² /m ²	Carbon monoxide yield (kg/kg)	0.0475	1.9837
Total smoke production	0.0 m ²	Carbon dioxide yield (kg/kg)	1.82	64.58
MAHRE	2.4 kW/m ²			591

Test averages

from ignition to ignition plus...	1 min	2 min	3 min	4 min	5 min	6 min	0 s - 902 s	0 s - 902 s
Heat release rate (kW/m ²)	8.95	9.73	8.58	6.16	4.66	3.56	0.30	0.30
Effective heat of comb. (MJ/kg)	42.42	20.24	22.61	22.11	17.60	14.24	2.40	2.40
Mass loss rate (g/s)	0.002	0.004	0.003	0.002	0.002	0.002	0.001	0.001
Specific extinction area (m ² /kg)	-166.28	-62.03	-68.16	-26.71	-34.49	-55.58	-163.58	-163.58
Carbon monoxide yield (kg/kg)	0.1285	0.0535	0.0604	0.0616	0.0499	0.0431	0.0204	0.0204
Carbon dioxide yield (kg/kg)	4.72	2.00	2.16	2.21	1.86	1.64	1.15	1.15

Smoke results

Total smoke release: non-flaming phase (0 s - 489 s) 1.8 m²/m²
Total smoke release: flaming phase (489 s - 900 s) 4.1 m²/m²
Total smoke release: whole test (0 s - 900 s) 5.9 m²/m²

Sample description 102677861MID-001 Consentino Dekton
Material name/ID 102677861MID-001 Consentino Dekton

Specimen information

E	13.1 MJ/kg	Specimen number	5	Conditioned?	Yes
Thickness	12 mm	Nominal duct flow rate	24 l/s	Temperature	23°C
Initial mass	281.4 g	Edge frame used?	Yes	RH	50%
Surface area	88.4 cm ²	Grid used?	No		
Heat flux	50 kW/m ²	Manufacturer			
Separation	25 mm	Sponsor			
Orientation	Horizontal				

Test

Standard used ULC S135
Date of test 29/07/2016
Time of test 10:24
Date of report 29/07/2016

Pre-test conditions

Ambient temperature 26.5°C
Ambient pressure 99.081 kPa
Relative humidity 54%

Test times

Time to ignition 515 s
Time to flameout 651 s
End of test criterion User entered
End of test time 900 s
(for calculations)

Apparatus specifications

C-factor 0.04401
Duct diameter 0.114 m
O₂ delay time 17 s
CO₂ delay time 17 s
CO delay time 17 s
OD corr. factor 1.0055

Initial conditions

Baseline ambient oxygen 20.549%
Baseline oxygen 20.947%
Baseline carbon dioxide 0.0434%
Mass at sustained flaming 280.9 g

Heat Release Results

THR (0-300) 0.09 MJ/m²
THR (0-600) 1.38 MJ/m²
THR (0-1200) -
Fuel load 0.05 MJ/kg

Test results (between 515 and 900 s)

			Mean	Peak	at time (s)
Total heat release	1.5 MJ/m ²	Heat release rate (kW/m ²)	3.14	16.01	568
Total oxygen consumed	1.0 g	Effective heat of comb. (MJ/kg)	15.80	79.75	583
Mass lost	0.7 g	Mass loss rate (g/s)	0.002	0.180	610
Average specific MLR	0.52 g/(s·m ²)	Specific extinction area (m ² /kg)	685.08	2093.97	685
Total smoke release	52.4 m ² /m ²	Carbon monoxide yield (kg/kg)	0.0758	4.8198	551
Total smoke production	0.5 m ²	Carbon dioxide yield (kg/kg)	1.47	143.29	551
MAHRE	2.6 kW/m ²				

Test averages

from ignition to ignition plus...	1 min	2 min	3 min	4 min	5 min	6 min	0 s - 903 s	0 s - 903 s
Heat release rate (kW/m ²)	13.02	11.06	7.41	5.21	4.04	3.34	1.03	1.03
Effective heat of comb. (MJ/kg)	27.29	43.60	20.13	22.75	15.79	18.79	6.41	6.41
Mass loss rate (g/s)	0.003	0.002	0.003	0.002	0.002	0.001	0.002	0.002
Specific extinction area (m ² /kg)	257.06	441.35	389.80	634.50	558.63	774.63	499.18	499.18
Carbon monoxide yield (kg/kg)	0.0731	0.1334	0.0670	0.0864	0.0662	0.0869	0.0408	0.0408
Carbon dioxide yield (kg/kg)	2.38	3.79	1.79	2.13	1.49	1.76	0.84	0.84

Smoke results

Total smoke release: non-flaming phase (0 s - 515 s) 22.3 m²/m²
Total smoke release: flaming phase (515 s - 900 s) 52.4 m²/m²
Total smoke release: whole test (0 s - 900 s) 74.7 m²/m²

Sample description 102677861MID-001 Consentino Dekton
Material name/ID 102677861MID-001 Consentino Dekton

Specimen information

E	13.1 MJ/kg	Specimen number	6	Conditioned?	Yes
Thickness	12 mm	Nominal duct flow rate	24 l/s	Temperature	23°C
Initial mass	281.7 g	Edge frame used?	Yes	RH	50%
Surface area	88.4 cm ²	Grid used?	No		
Heat flux	50 kW/m ²	Manufacturer			
Separation	25 mm	Sponsor			
Orientation	Horizontal				

Test

Standard used ULC S135
Date of test 29/07/2016
Time of test 10:43
Date of report 29/07/2016

Pre-test conditions

Ambient temperature 25°C
Ambient pressure 99.057 kPa
Relative humidity 54%

Test times

Time to ignition not recorded
Time to flameout s
End of test criterion User entered
End of test time 900 s
(for calculations)

Apparatus specifications

C-factor 0.04401
Duct diameter 0.114 m
O₂ delay time 17 s
CO₂ delay time 17 s
CO delay time 17 s
OD corr. factor 1.0055

Initial conditions

Baseline ambient oxygen 20.587%
Baseline oxygen 20.951%
Baseline carbon dioxide 0.0431%
Mass at sustained flaming no ignition

Heat Release Results

THR (0-300) 0.17 MJ/m²
THR (0-600) 0.41 MJ/m²
THR (0-1200) -
Fuel load 0.02 MJ/kg

Test results (between 0 and 900 s)

			Mean	Peak	at time (s)
Total heat release	0.6 MJ/m ²	Heat release rate (kW/m ²)	0.07	4.36	674
Total oxygen consumed	0.4 g	Effective heat of comb. (MJ/kg)	0.51	79.75	5
Mass lost	1.1 g	Mass loss rate (g/s)	0.001	0.225	528
Average specific MLR	0.16 g/(s·m ²)	Specific extinction area (m ² /kg)	-190.10	3178.42	511
Total smoke release	14.8 m ² /m ²	Carbon monoxide yield (kg/kg)	0.0062	1.4767	19
Total smoke production	0.1 m ²	Carbon dioxide yield (kg/kg)	-0.25	11.49	24
MAHRE	2.5 kW/m ²				

Test averages

	between time 0 and... 1 min	2 min	3 min	4 min	5 min	6 min		0 s - 921 s	0 s - 921 s
Heat release rate (kW/m ²)		0.62	0.41	-0.05	-0.19	-0.25	-0.22	0.08	0.08
Effective heat of comb. (MJ/kg)		3.03	-5.24	-5.80	-1.87	-20.17	-16.24	0.54	0.54
Mass loss rate (g/s)		0.002	-0.001	-0.000	0.001	0.000	0.000	0.001	0.001
Specific extinction area (m ² /kg)		-53.59	243.52	-3072.15	-293.84	-2894.77	-3008.75	-177.57	-177.57
Carbon monoxide yield (kg/kg)		0.0042	0.0072	-0.1108	-0.0123	-0.0856	-0.0750	0.0057	0.0057
Carbon dioxide yield (kg/kg)		-0.04	0.07	-1.47	-0.19	-1.68	-1.72	-0.22	-0.22

Smoke results

Total smoke release: whole test (0 s - 900 s) 14.8 m²/m²

Heat flux	50 kW/m ²	Surface area	88.4 cm ²
Orientation	Horizontal	Retainer frame used?	Yes

Test averages

Test	t(ig) (s)	t(fo) (s)	t(end) (s)	HRR(peak) (kW/m ²)	tpeak (s)	THR (MJ/m ²)	HRR(60) (kW/m ²)	HRR(180) (kW/m ²)	HRR(300) (kW/m ²)
Mean	435.5	542.8	900	11.81	586.8	1.07	7.36	4.79	2.49
1	511	638	900	11.17	541	0.92	6.92	4.51	1.98
2	539	667	900	14.74	601	1.28	10.05	6.64	3.57
3	559	627	900	9.31	592	0.49	4.61	1.63	0.92
4	489	674	900	15.24	545	1.59	8.95	8.58	4.66
5	515	651	900	16.01	568	1.47	13.02	7.41	4.04
6	0		900	4.36	674	0.64	0.62	-0.05	-0.25

Test	Flux (kW/m ²)	t (mm)	Area (cm ²)	m(i) (g)	m(s) (g)	m(f) (g)	Δm (g)	Ave MLR (g/s·m ²)	EHC(av) (MJ/kg)
Mean		12		281.4	281.1	280.4	0.7	0.5	9.78
1	50	12	88.4	281.1	281.0	280.3	0.7	0.5	5.90
2	50	12	88.4	281.3	280.7	280.2	0.5	0.4	16.93
3	50	12	88.4	281.2	281.1	280.5	0.6	0.8	4.70
4	50	12	88.4	281.6	281.3	280.6	0.7	0.5	14.81
5	50	12	88.4	281.4	280.9	280.2	0.7	0.5	15.80
6	50	12	88.4	281.7	281.7	280.6	1.1	0.2	0.51

Test	THR(0-300) (MJ/m ²)	THR(0-600) (MJ/m ²)	THR(0-1200) (MJ/m ²)	SPR(av) (m ² /s)	SEA(av) (m ² /kg)	Fuel load (MJ/kg)	MARHE (kW/m ²)
Mean	0.10	0.82	-	0.0004	221.64	0.03	2.04
1	0.03	0.69	-	0.0007	384.43	0.03	1.45
2	0.08	0.75	-	-0.0002	-149.59	0.04	2.01
3	0.22	0.55	-	0.0012	691.37	0.02	1.26
4	0.03	1.13	-	-0.0002	-91.33	0.05	2.39
5	0.09	1.38	-	0.0012	685.08	0.05	2.61
6	0.17	0.41	-	-0.0002	-190.10	0.02	2.52

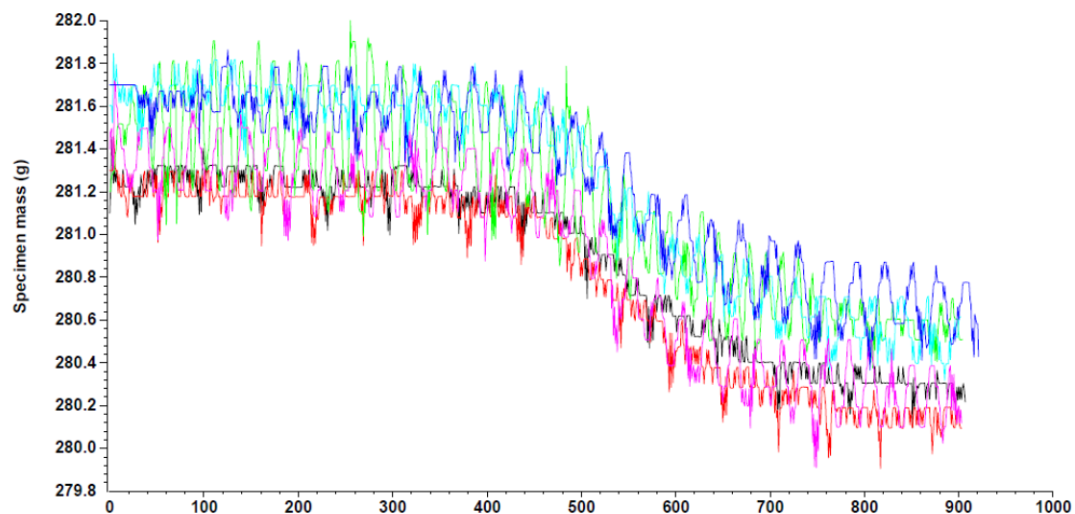
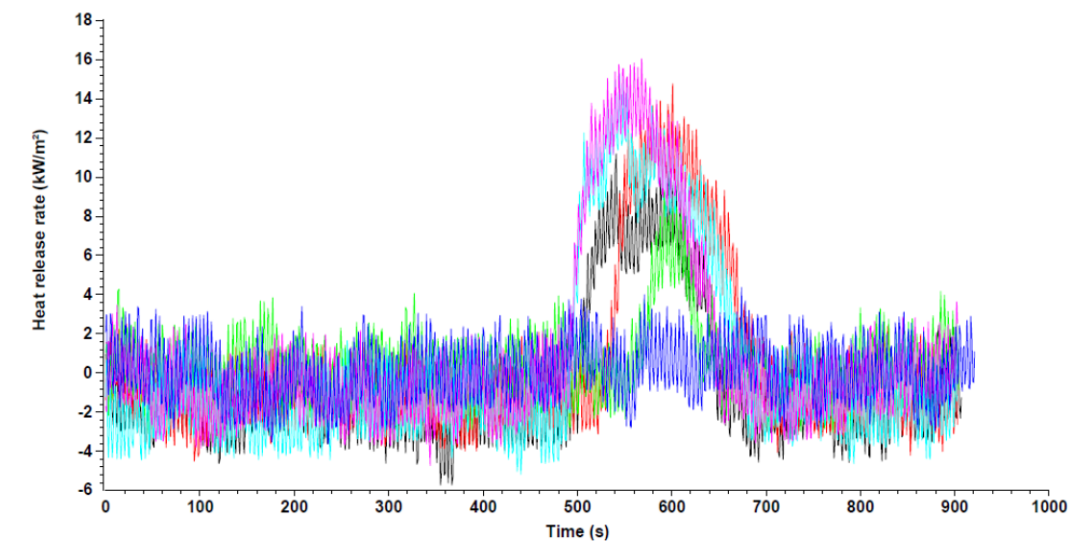
Test	Date	Specimen #	Line colour	Filename
1	29/07/2016	1		C:\CC5\Data\Consentino NA (C&C)\102677861\102677861MID-001 Consentino Dekton 1.csv
2	29/07/2016	2		C:\CC5\Data\Consentino NA (C&C)\102677861\102677861MID-001 Consentino Dekton 2.csv
3	29/07/2016	3		C:\CC5\Data\Consentino NA (C&C)\102677861\102677861MID-001 Consentino Dekton 3.csv
4	29/07/2016	4		C:\CC5\Data\Consentino NA (C&C)\102677861\102677861MID-001 Consentino Dekton 4.csv
5	29/07/2016	5		C:\CC5\Data\Consentino NA (C&C)\102677861\102677861MID-001 Consentino Dekton 5.csv
6				

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

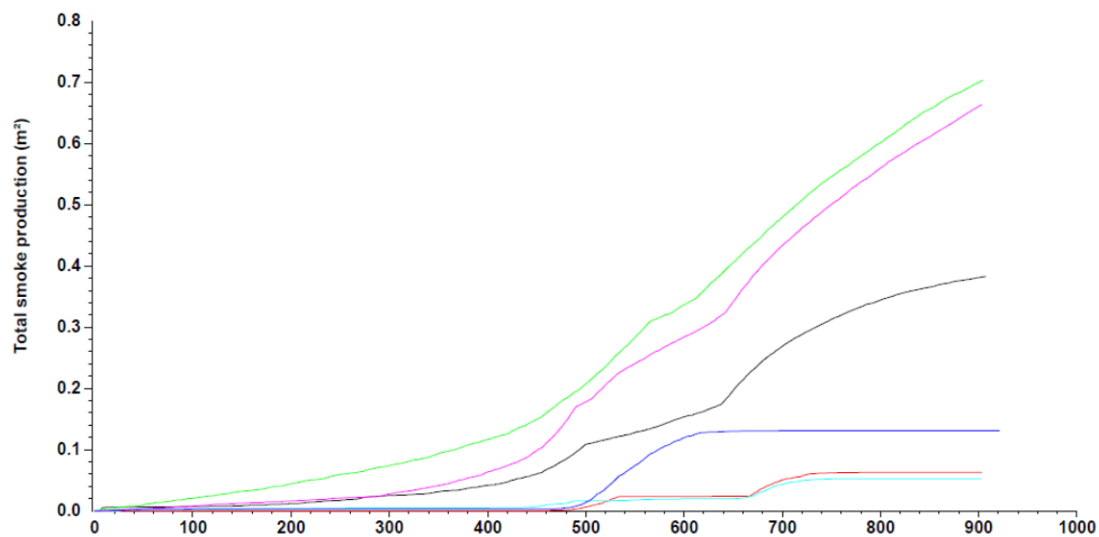
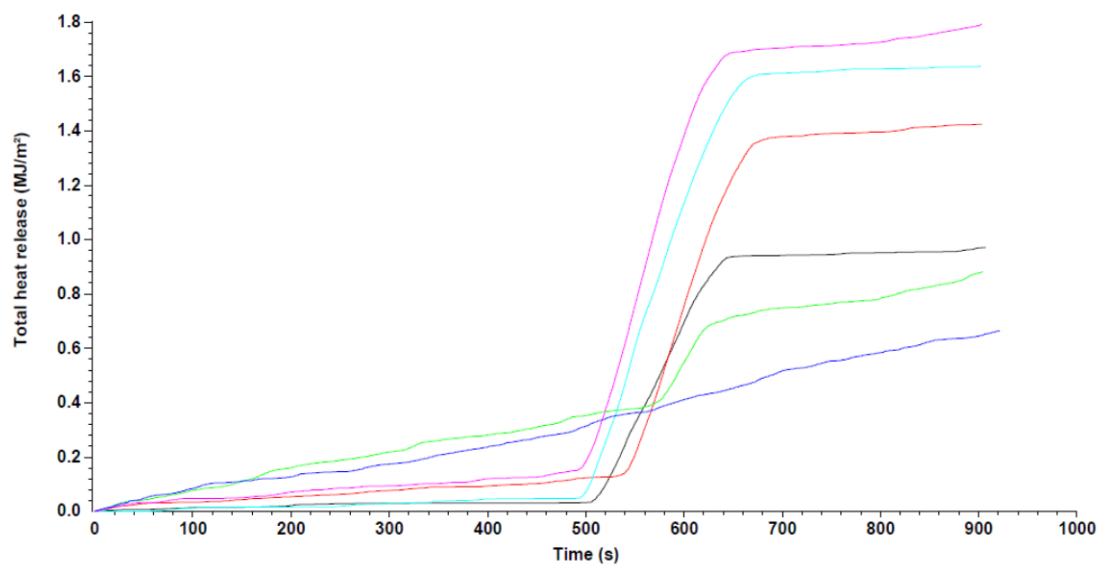
Observations for all of the samples:

The Total Heat Release for Specimens # 1 - # 3 were not within 10% of the average, which calls for a total of six specimens to be tested per the ULC S135 standard. Specimens # 1 - # 5 ignited with small yellow flames around the edges of the sample holder, and black smoke. Specimen # 6 did not ignite but released white smoke during the test period.

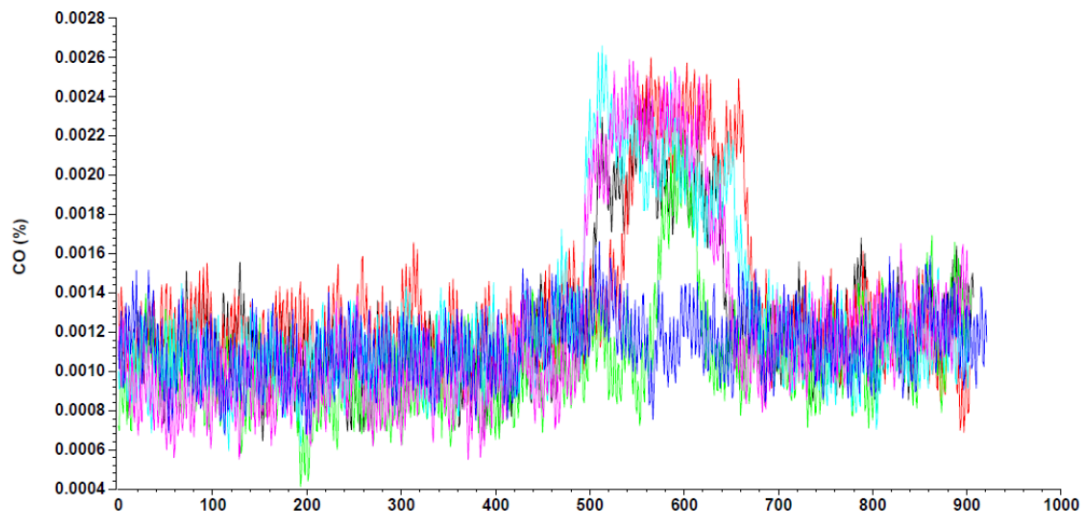
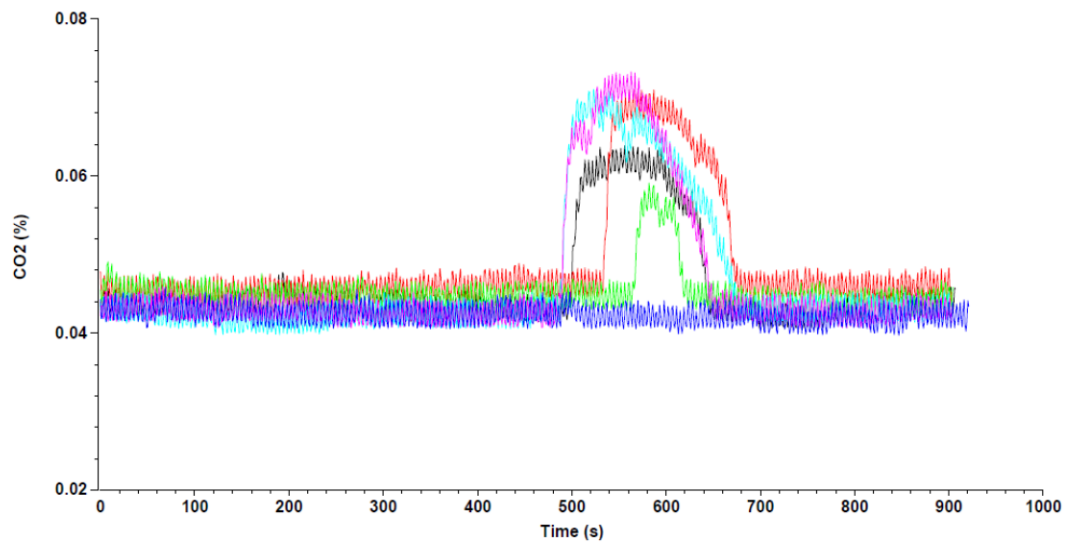
Graphs



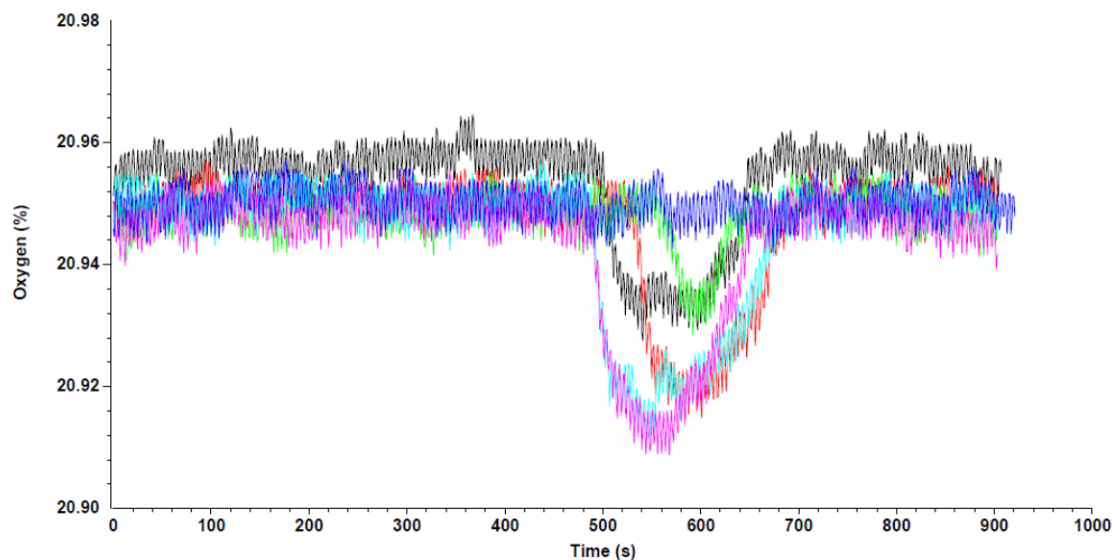
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Summary of Total Smoke Production

	Total Smoke Production
Specimen #	m ²
1	0.3
2	0.0
3	0.4
4	0.0
5	0.5
6	0.1
Average	0.22

6 Conclusion

Intertek has conducted testing for C&C North America Inc., on Dekton ultracompact panels to evaluate heat and smoke release rates. Testing was conducted following the standard methods of ULC S135-04 Standard Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter) in accordance with the National Building Code of Canada for materials used in buildings that are required to be of noncombustible.

There are no pass/fail criteria for ULC S135-04.

With reference to the National Building Code of Canada, the material had an average total heat release of 1.07 MJ/m^2 (3 MJ/m^2 maximum allowable) and average total smoke extinction area of 0.22 m^2 (1.0 m^2 maximum allowable). It therefore **passed** the National Building Code of Canada for materials used in buildings that are required to be noncombustible.

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

INTERTEK



Reported by:

Tolu Bamikunle
Lab Technician III, Verification Center



Reviewed by:

Bryan Bowman
Chemist, Verification Center

REVISION SUMMARY

DATE	SUMMARY
July 29, 2016	Original date of report

Equipment:

Cone Calorimeter: 1199

Balance: 1083

Calipers: 1248

Room Temperature and Humidity: 1375