SGS

Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/3/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	M
		PO#:		**Test Report:**	3-45692-0
		Email:	lh@kvadrat.dk		
	Denmark				

Key Test: CAN/ULC-S102 3072

Client's Identification:

Style: Ease. Composition: 100% Polyester FR. Weight: 11 g/m².

LE: 2018 V 7/21 DK PC: ME CODE: I=1444 F=3072 CLEAN=1050 /dv

TEST PERFORMED: CAN/ULC-S102-10 - Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies

TEST CONDUCTED:

☐ Indicative
☒ Formal

PRODUCT CATEGORY: ☐ Composite Panel Material

BRIEF DESCRIPTION OF TEST METHOD: The method is designed to determine the relative burning characteristics of materials under specific test conditions. Results of less than three identical specimens are expressed in terms of Flame Spread Value (FSV) and Smoke Developed Value (SDV). Results of three or more replicate tests on identical specimens produce average values expressed as Flame Spread Rating (FSR) and Smoke Developed Classification (SDC).

SUMMARY OF TEST PROCEDURE: The tunnel is preheated to 85°C, as measured by the backwall-embedded thermocouple located 7090 mm downstream of the burner ports, and allowed to cool to 40°C, as measured by the backwall-embedded thermocouple located 4000 mm from the burners. At this time the tunnel lid is raised, and the test sample is placed along the ledges of the tunnel so as to form a continuous ceiling above the floor and then the lid is lowered. Upon ignition of the gas burners, the flame spread distance is observed and recorded every second. Flame spread distance versus time is plotted, ignoring any flame front recessions. Calculations are based on comparison with flame spread characteristics of select red oak, determined in calibration trials and arbitrarily established as 100. If the area under the curve (AT) is less than or equal to 29.7 m²min, FSV=1.85·AT; if greater, FSV=1640/(59.4-AT). The Smoke Developed Value is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, established as 0 and 100, respectively.

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Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/3/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	M
		PO#:		**Test Report:**	3-45692-0
		Email:	lh@kvadrat.dk		
	Denmark				

Key Test: CAN/ULC-S102 3072

SAMPLE PREPARATION:

☐ The sample consisted of two sections of materials, each approximately 445 mm in width by 3658 mm in length butted together to form the requisite specimen length. The specimen was free laid (no adhesive) on top of a 6 mm fiberglass reinforced cement board substrate.

☒ Other: The sample consisted of three 8 ft. sections butted end to end to make the 24 ft. length. The specimen was laid over 2" hexagonal wire mesh screen and ¼" rods.

REPORTED AS:

☐ INDICATIVE (Single Specimen Test):

Flame Spread Value (FSV):
Smoke Developed Value (SDV):

☒ FORMAL (Average Value of three replicate tests rounded to the nearest multiple of five points):

Flame Spread Rating (FSR): 0
Smoke Developed Classification (SDC): 10

RESULTS:

Specimen #	Flame Spread Value	Smoke Developed Value	Burn Distance (meters)	Time (seconds)
1	0	13	0	0
2	0	10	0	0
3	0	8	0	0

OBSERVATIONS:

1. No unusual observations
2. No unusual observations
3. No unusual observations

SGS

Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/3/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	M
		PO#:		**Test Report:**	3-45692-0
		Email:	lh@kvadrat.dk		
	Denmark				
Key Test:	CAN/ULC-S102				3072

REMARKS: None.

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified above.

Theresa MacMillan

AUTHORIZED SIGNATURE
SGS NORTH AMERICA
/jab/dv

Theresa MacMillan

NOV 11 2021

Enclosure: 3 Graph Chart (Formal)

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SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method	: CAN S-102
Test Report #	: 3-45692-0-M
Date	: 11/3/2021
Client	: Kvadrat A/S
Operator	: Jillian Guillem
Details of Preparation	: The test sample consisted of three 8 ft. sections butted end to end to make the 24 ft. length. The specimen was laid over 2" hexagonal wire mesh screen and 1/4" rods.
Observations	: No unusual observations

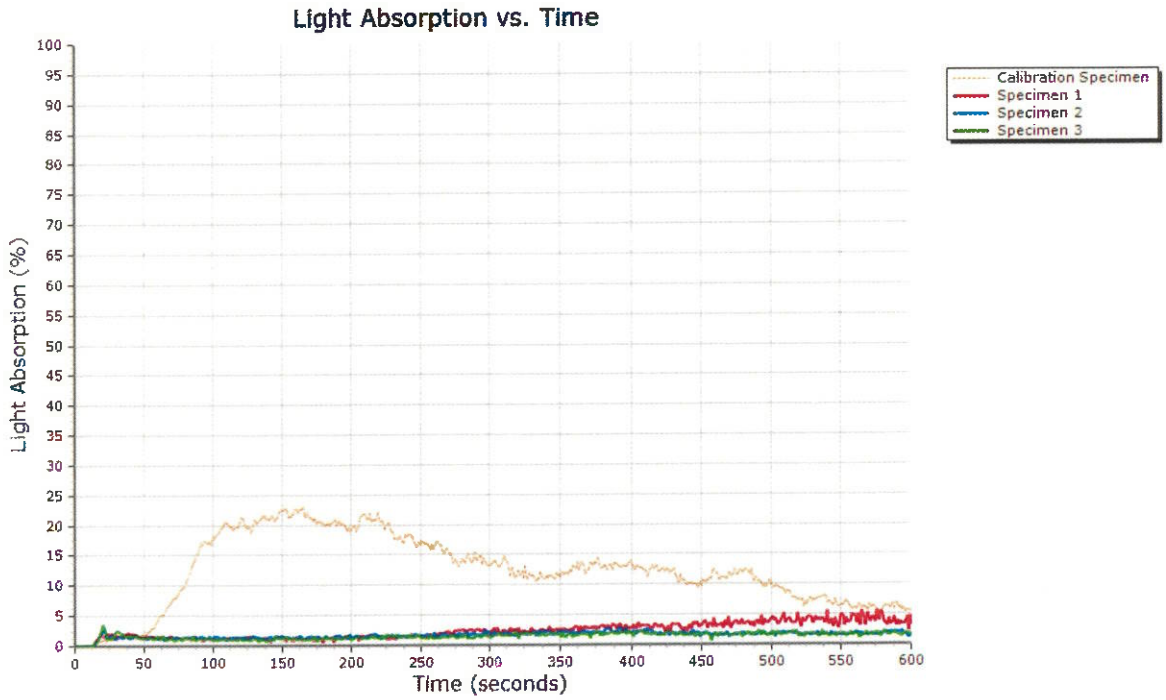
	Specimen 1	Specimen 2	Specimen 3
Area Under Flame Curve (m min)	0.00	0.00	0.00
Raw Flame Spread Value (m min)	0.00	0.00	0.00
Rounded Flame Spread Value (m min)	**0**	**0**	**0**
Ignition Time	**00:11 mm:ss**	**00:10 mm:ss**	**00:15 mm:ss**
Area Under Smoke Curve (%A min)	16.40	11.92	9.41
Raw Smoke Developed Value	13.27	9.64	7.62
Rounded Smoke Developed Value	**13**	**10**	**8**
Total Gas Flow(L)	1287.1	1287.1	1287.2
Total Gas Flow(ft^3)	45.5	45.5	45.5
Maximum Flame Front Achieved(m)	0 (@0s)	0 (@0s)	0 (@0s)

Flame Spread Rating : **0**
Smoke Developed Classification : **10**

SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45692-0-M

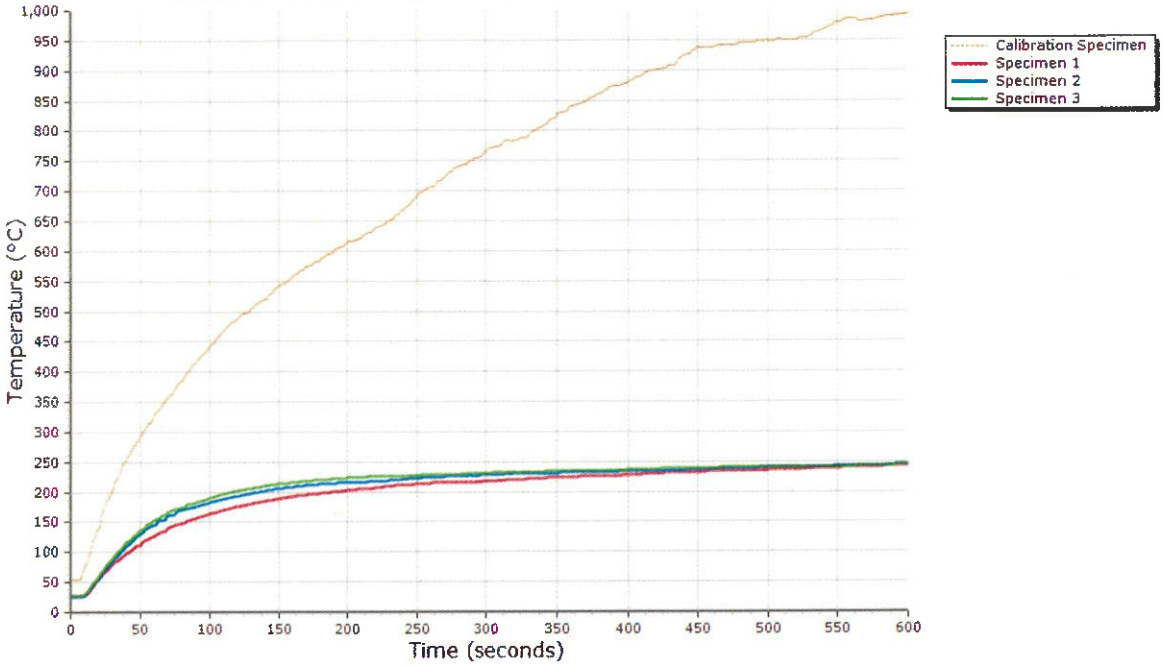


SGS GOVMARK

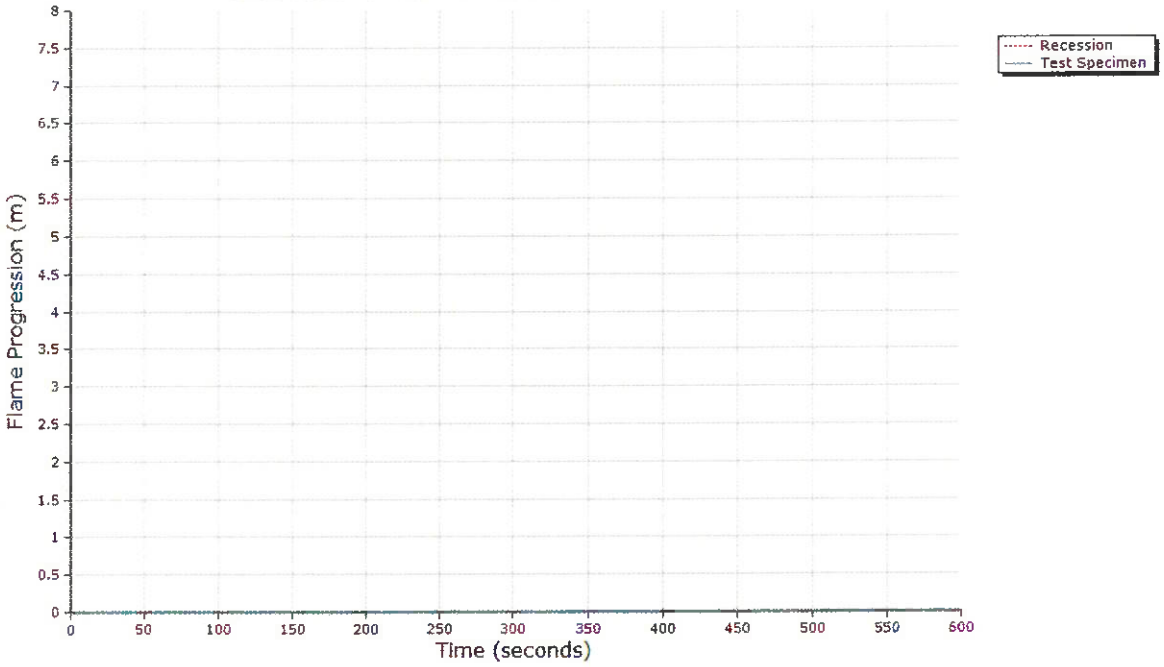
Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45692-0-M

Exposed Thermocouple Temperature vs. Time



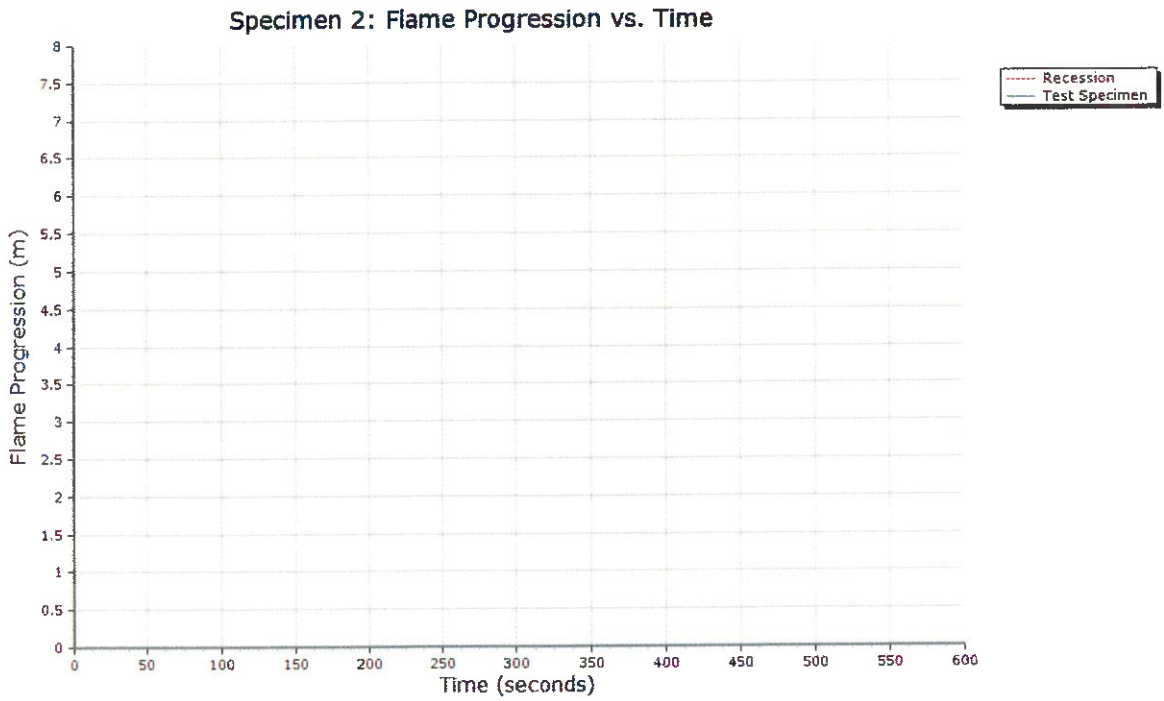
Specimen 1: Flame Progression vs. Time



SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45692-0-M

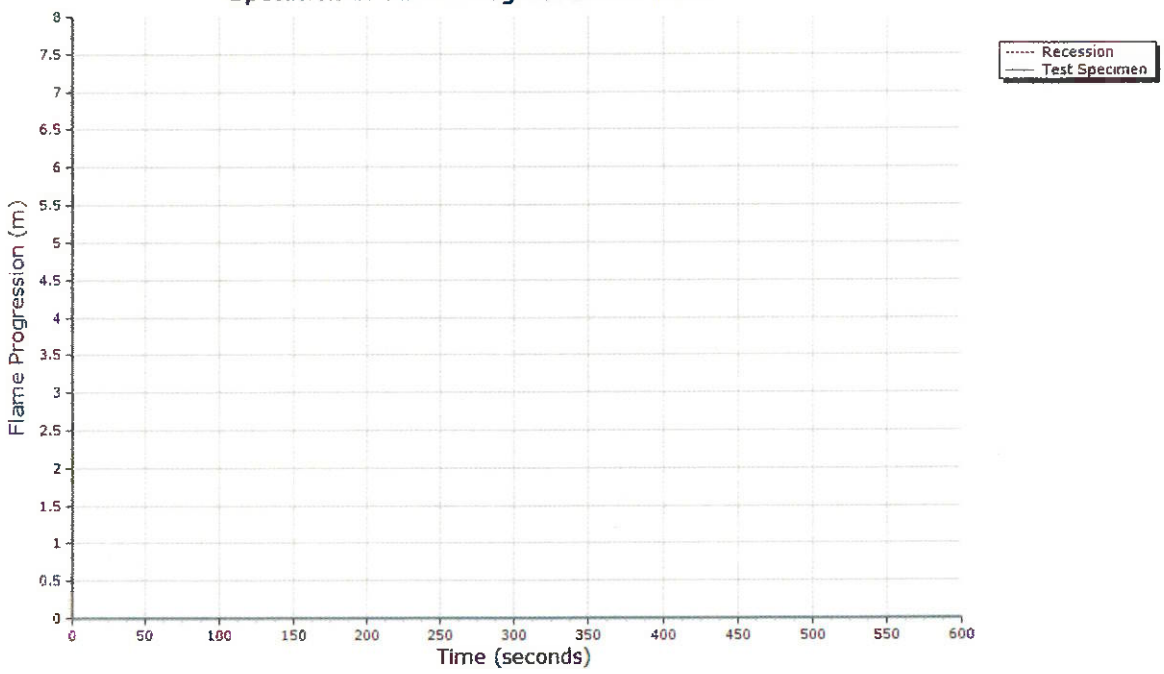


SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45692-0-M

Specimen 3: Flame Progression vs. Time



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Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/3/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	N
		PO#:		**Test Report:**	3-45693-0
		Email:	lh@kvadrat.dk		
	Denmark				

Key Test: CAN/ULC-S102 1444

Client's Identification:

Style: Sosa. Composition: 100% Polyester FR. Weight: 586 g/m².

LE: 2018 V 7/21 DK PC: ME CODE: I=1444 F=3072 CLEAN=1050 /dv

TEST PERFORMED: CAN/ULC-S102-10 - Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies

TEST CONDUCTED:

☒ Indicative
☐ Formal

PRODUCT CATEGORY: ☐ Composite Panel Material

BRIEF DESCRIPTION OF TEST METHOD: The method is designed to determine the relative burning characteristics of materials under specific test conditions. Results of less than three identical specimens are expressed in terms of Flame Spread Value (FSV) and Smoke Developed Value (SDV). Results of three or more replicate tests on identical specimens produce average values expressed as Flame Spread Rating (FSR) and Smoke Developed Classification (SDC).

SUMMARY OF TEST PROCEDURE: The tunnel is preheated to 85°C, as measured by the backwall-embedded thermocouple located 7090 mm downstream of the burner ports, and allowed to cool to 40°C, as measured by the backwall-embedded thermocouple located 4000 mm from the burners. At this time the tunnel lid is raised, and the test sample is placed along the ledges of the tunnel so as to form a continuous ceiling above the floor and then the lid is lowered. Upon ignition of the gas burners, the flame spread distance is observed and recorded every second. Flame spread distance versus time is plotted, ignoring any flame front recessions. Calculations are based on comparison with flame spread characteristics of select red oak, determined in calibration trials and arbitrarily established as 100. If the area under the curve (AT) is less than or equal to 29.7 m²min, FSV=1.85·AT; if greater, FSV=1640/(59.4-AT). The Smoke Developed Value is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, established as 0 and 100, respectively.

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Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/3/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	N
		PO#:		**Test Report:**	3-45693-0
		Email:	lh@kvadrat.dk		
	Denmark				

Key Test: CAN/ULC-S102 1444

SAMPLE PREPARATION:

☐ The sample consisted of two sections of materials, each approximately 445 mm in width by 3658 mm in length butted together to form the requisite specimen length. The specimen was free laid (no adhesive) on top of a 6 mm fiberglass reinforced cement board substrate.

☒ Other: The test sample consisted of three 8 ft. sections butted end to end to make the 24 ft. length. Test specimen was laid over 2" hexagonal wire mesh and ¼" steel rods.

REPORTED AS:

☒ INDICATIVE (Single Specimen Test):

Flame Spread Value (FSV): 0
Smoke Developed Value (SDV): 90

☐ FORMAL (Average Value of three replicate tests rounded to the nearest multiple of five points):

Flame Spread Rating (FSR):
Smoke Developed Classification (SDC):

RESULTS:

Specimen #	Flame Spread Value	Smoke Developed Value	Burn Distance (meters)	Time (seconds)
1	0	90	0	0
2	NT	NT	NT	NT
3	NT	NT	NT	NT

OBSERVATIONS:

1. Flaming drip and burning on chamber floor.
2. NT
3. NT

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Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/3/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	N
		PO#:		**Test Report:**	3-45693-0
		Email:	lh@kvadrat.dk		
	Denmark				

Key Test: CAN/ULC-S102 1444

REMARKS: NT = Not tested.

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified above.

Theresa MacMillan

AUTHORIZED SIGNATURE
SGS NORTH AMERICA
/jab /dv

Theresa MacMillan

NOV 1 1 2021

Enclosure: 3 Graph Chart (Formal)

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SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method	: CAN S-102
Test Report #	: 3-45693-0-N
Date	: 11/3/2021
Client	: Kvadrat A/S
Operator	: Andrew Niemczyk
Details of Preparation	: The test sample consisted of three 8 ft. sections butted end to end to make the 24 ft. length. The specimen was laid over 2" hexagonal wire mesh screen and 1/4" rods.
Observations	: Flaming drip and burning on chamber floor

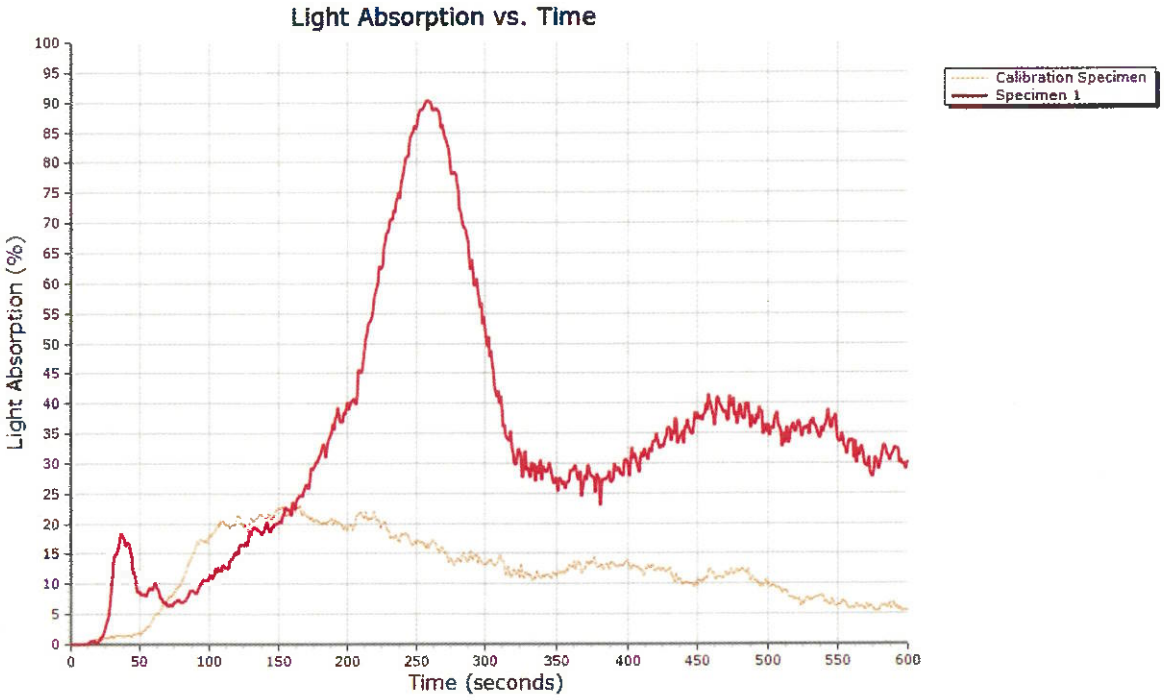
	Specimen 1
Area Under Flame Curve (m min)	0.00
Raw Flame Spread Value (m min)	0.00
Rounded Flame Spread Value (m min)	**0**
Ignition Time	**00:07 mm:ss**
Area Under Smoke Curve (%A min)	333.12
Raw Smoke Developed Value	269.46
Rounded Smoke Developed Value	**269**
Total Gas Flow(L)	1287
Total Gas Flow(ft^3)	45.5
Maximum Flame Front Achieved(m)	0 (@0s)

Flame Spread Rating : **0**
Smoke Developed Classification : **90**

SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45693-0-N

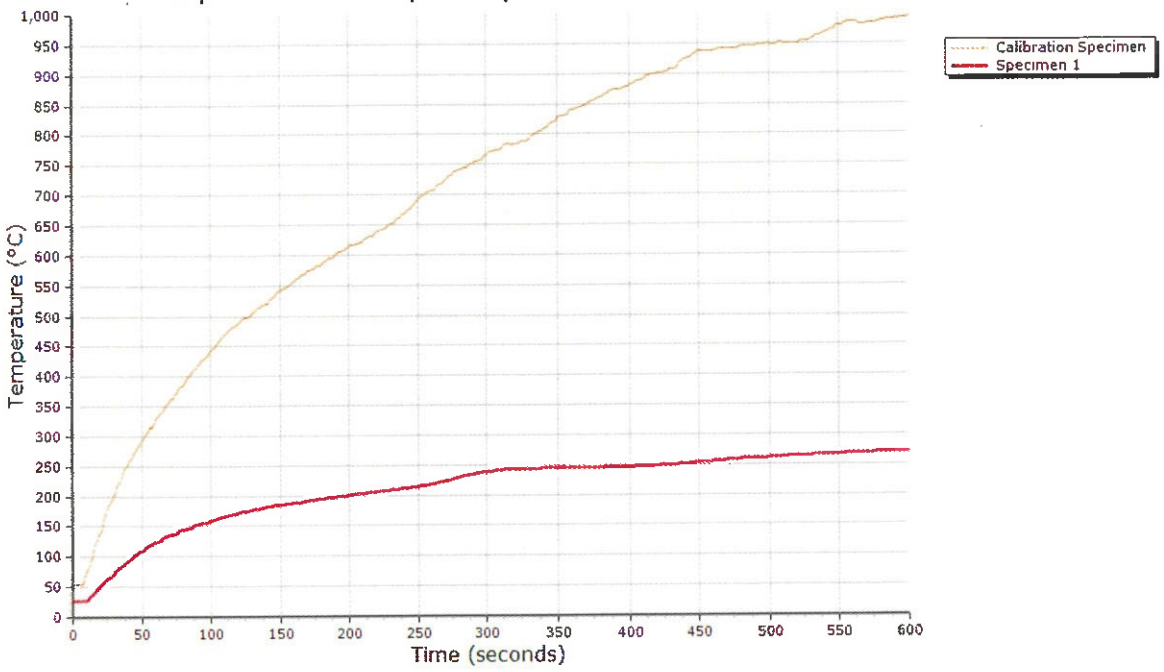


SGS GOVMARK

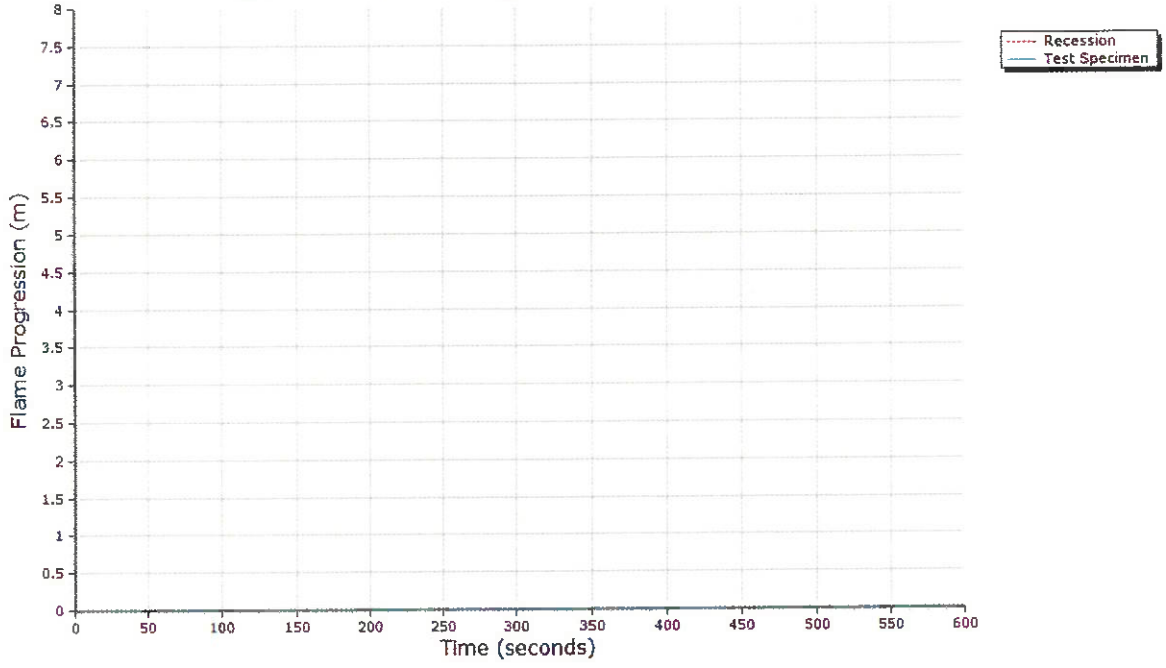
Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45693-0-N

Exposed Thermocouple Temperature vs. Time



Specimen 1: Flame Progression vs. Time



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Tested For:	**Lone Henriksen**	**Phone:**	**011 45 89 53 18 60**	**Received:**	**10/28/2021**
	Kvadrat A/S	**Fax:**		**Completed:**	**11/4/2021**
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	**N1**
		PO#:		**Test Report:**	**3-45693-1**
		Email:	**lh@kvadrat.dk**		
	Denmark				

Key Test: **CAN/ULC-S102.2** **3072**

Client's Identification:

Style: Sosa. Composition: 100% Polyester FR. Weight: 586 g/m².

LE: 2018 V 09/18 PC: ME CODE: I=1375 F=2925 CLEAN=1000 /rb /dv

TEST PERFORMED: CAN/ULC-S102.2-18 - Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials

TEST CONDUCTED:

☐ Indicative
☒ Formal

PRODUCT CATEGORY: ☐ Composite Panel Material

BRIEF DESCRIPTION OF TEST METHOD: The method is designed to determine the relative burning characteristics of materials under specific test conditions. Results of less than three identical specimens are expressed in terms of Flame Spread Value (FSV) and Smoke Developed Value (SDV). Results of three or more replicate tests on identical specimens produce average values expressed as Flame Spread Rating (FSR) and Smoke Developed Classification (SDC).

SUMMARY OF TEST PROCEDURE: The tunnel is preheated to 85°C, as measured by the backwall-embedded thermocouple located 7090 mm downstream of the burner ports, and allowed to cool to 40°C, as measured by the backwall-embedded thermocouple located 4000 mm from the burners. At this time the tunnel lid is raised, and the test sample is placed along the floor of the tunnel so as to form a continuous surface and then the lid is lowered. Upon ignition of the gas burners, the flame spread distance is observed and recorded every second. Flame spread distance versus time is plotted, ignoring any flame front recessions. Calculations are based on comparison with flame spread characteristics of select red oak, determined in calibration trials and arbitrarily established as 100. If the area under the curve (AT) is less than or equal to 29.7 m²min, FSV=1.85·AT; if greater, FSV=1640/(59.4-AT). The Smoke Developed Value is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, established as 0 and 100, respectively.

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Tested For: Lone Henriksen
Kvadrat A/S
Lundbergsvej 10 DK-8400 Ebeltoft
Denmark

Phone: 011 45 89 53 18 60
Fax:
Mobile:
PO#:
Email: lh@kvadrat.dk

Received: 10/28/2021
Completed: 11/4/2021
Code: N1
Test Report: 3-45693-1

Key Test: CAN/ULC-S102.2 3072

SAMPLE PREPARATION:

☐ The sample consisted of two sections of materials, each approximately 445 mm in width by 3658 mm in length butted together to form the requisite specimen length. The specimen was free laid (no adhesive) on top of a 6 mm fiberglass reinforced cement board substrate.

☒ Other: The specimen was laid on the oven floor. The 7315 mm length was consisted of three 2438 mm sections butted end to end.

REPORTED AS:

☐ INDICATIVE (Single Specimen Test):

Flame Spread Value (FSV):
Smoke Developed Value (SDV):

☒ FORMAL (Average Value of three replicate tests):

Flame Spread Rating (FSR): 5
Smoke Developed Classification: 115

RESULTS:

Specimen #	Flame Spread Value	Smoke Developed Value	Burn Distance (meters)	Time (seconds)
1	5	97	0.5	274
2	9	126	0.6	149
3	7	121	0.6	299

OBSERVATIONS:

1. No unusual observations
2. No unusual observations
3. No unusual observations

SGS

Tested For:	**Lone Henriksen**	**Phone:**	**011 45 89 53 18 60**	**Received:**	**10/28/2021**
	Kvadrat A/S	**Fax:**		**Completed:**	**11/4/2021**
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	**N1**
		PO#:		**Test Report:**	**3-45693-1**
		Email:	**lh@kvadrat.dk**		
	Denmark				

Key Test: **CAN/ULC-S102.2** 3072

REMARKS: None.

ACCEPTANCE CRITERIA: None cited.

CONCLUSION: Not applicable.

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified above.

Theresa MacMillan

AUTHORIZED SIGNATURE
SGS NORTH AMERICA
/jab/dv

Theresa MacMillan

NOV 11 2021

Enclosure: Graphs

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SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method	: CAN S-102
Test Report #	: 3-45693-1-N1
Date	: 11/4/2021
Client	: Kvadrat A/S
Operator	: Joe Philippas
Details of Preparation	: The specimen was laid on the oven floor. The 7315 mm length consisted of three 2438 mm sections butted end to end.
Observations	: No unusual observations.

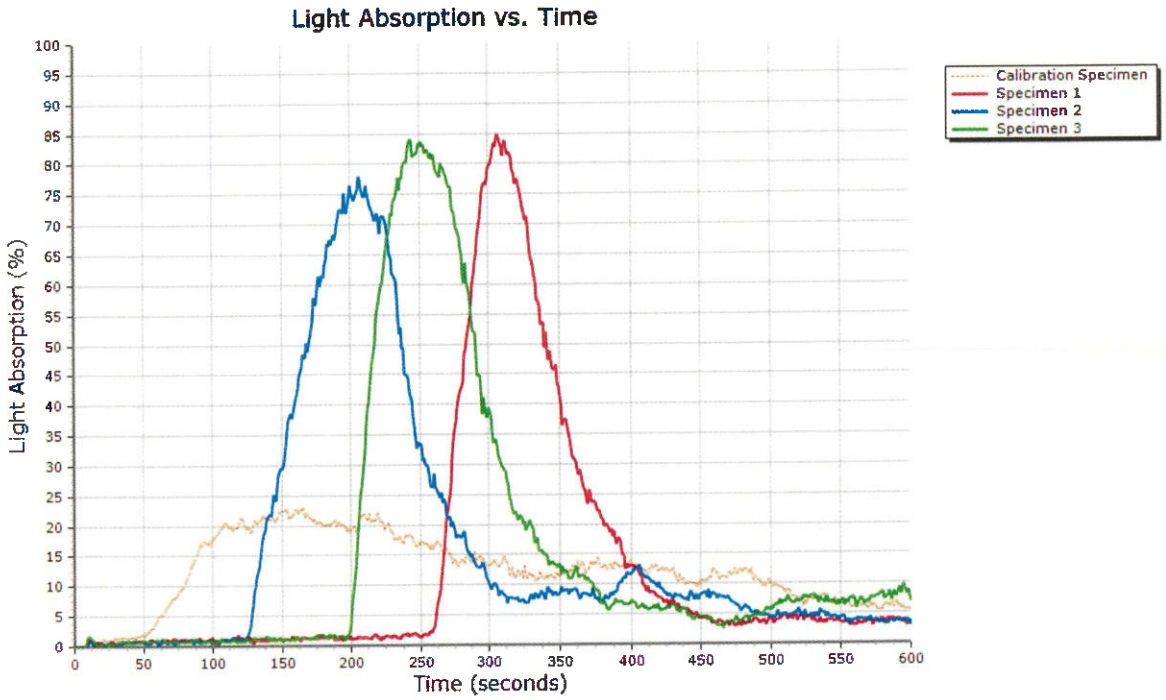
	Specimen 1	Specimen 2	Specimen 3
Area Under Flame Curve (m min)	2.62	4.70	4.02
Raw Flame Spread Value (m min)	4.85	8.69	7.44
Rounded Flame Spread Value (m min)	**5**	**9**	**7**
Ignition Time	**04:16 mm:ss**	**02:20 mm:ss**	**03:17 mm:ss**
Area Under Smoke Curve (%A min)	120.29	155.22	149.87
Raw Smoke Developed Value	97.30	125.55	121.23
Rounded Smoke Developed Value	**97**	**126**	**121**
Total Gas Flow(L)	1287.9	1287.9	1288.3
Total Gas Flow(ft^3)	45.5	45.5	45.5
Maximum Flame Front Achieved(m)	0.5 (@274s)	0.6 (@149s)	0.6 (@299s)

Flame Spread Rating : **5**
Smoke Developed Classification : **115**

SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45693-1-N1

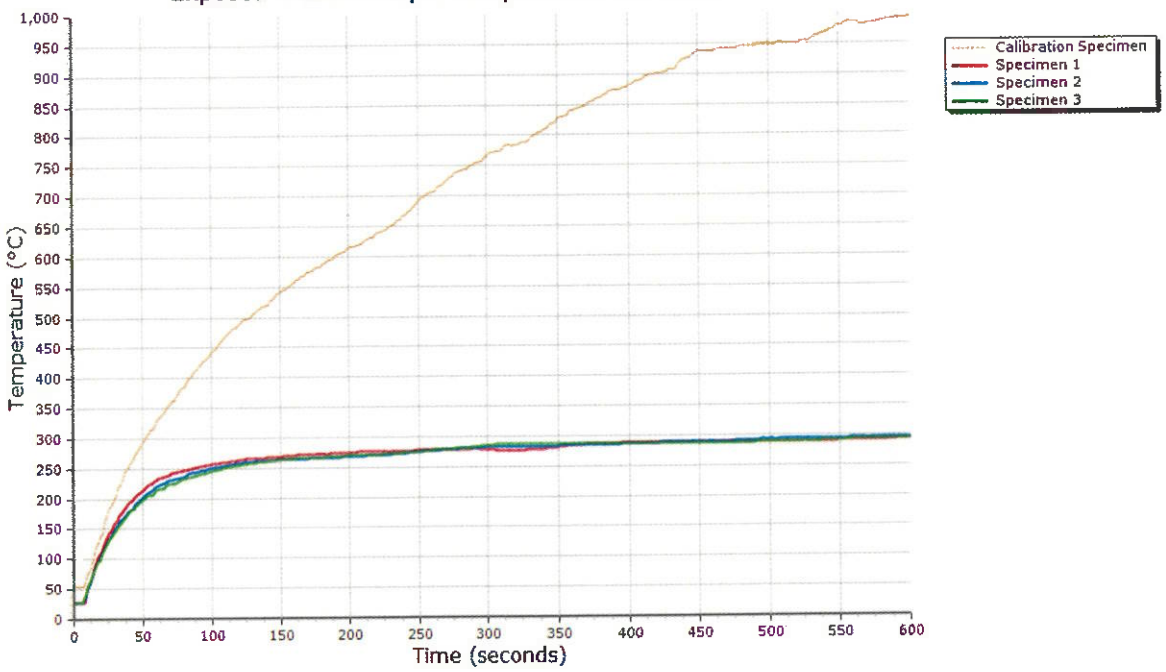


SGS GOVMARK

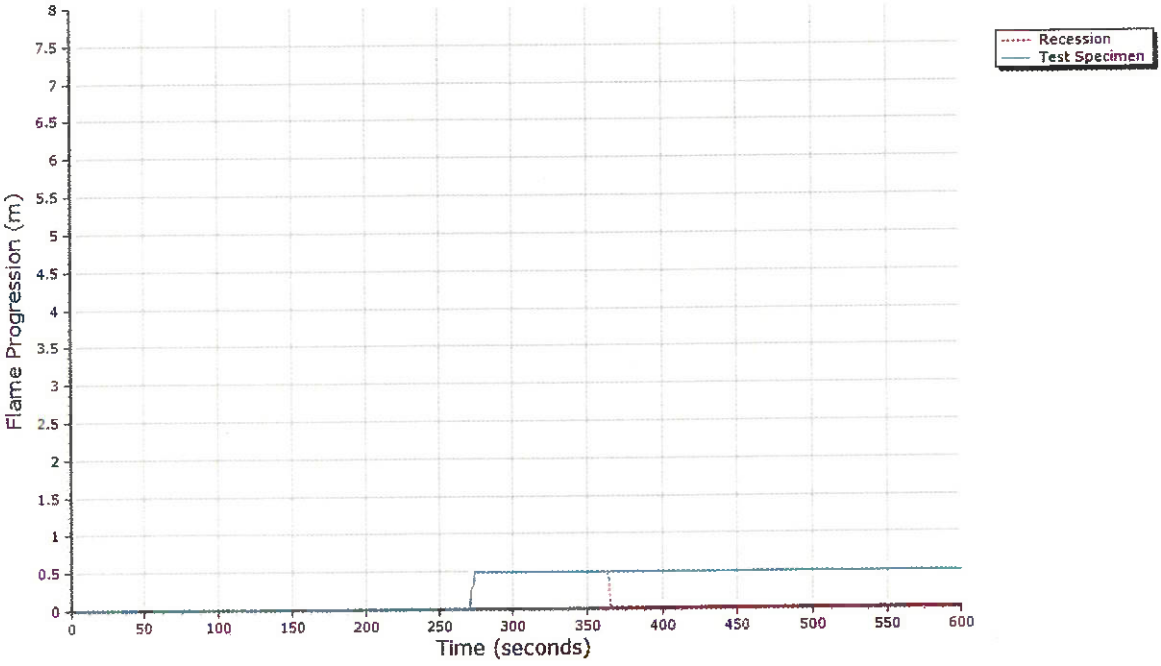
Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45693-1-N1

Exposed Thermocouple Temperature vs. Time



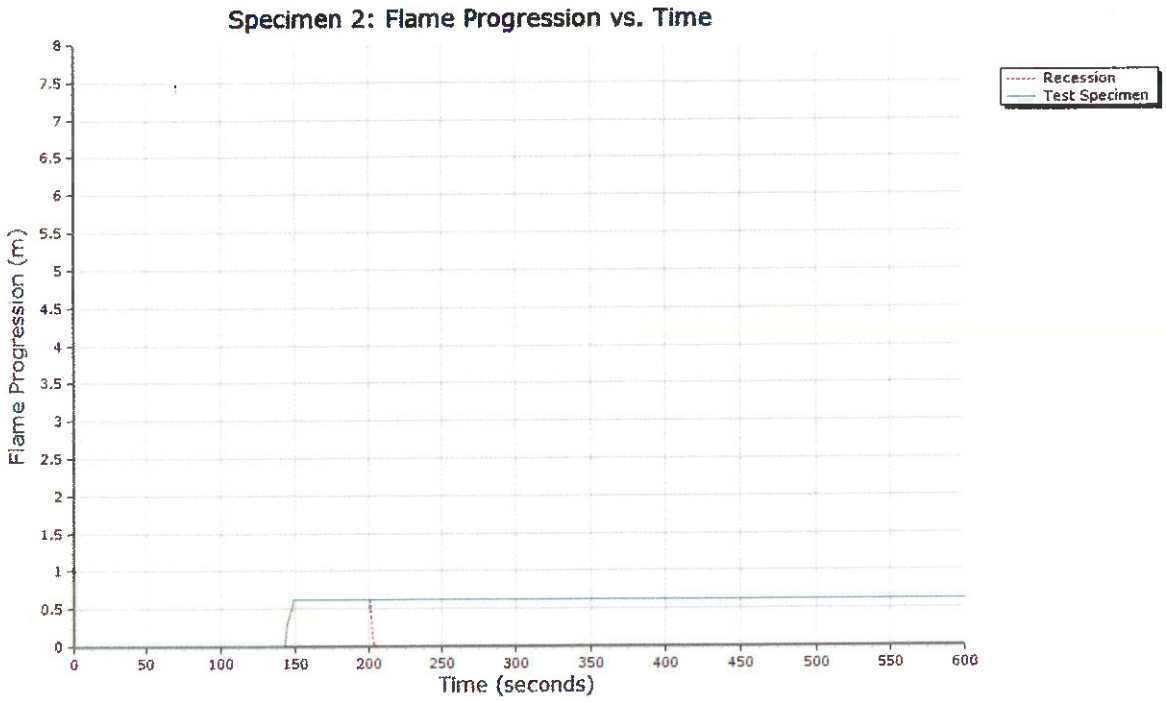
Specimen 1: Flame Progression vs. Time



SGS GOVMARK

Program: CAN S-102 (Version 1.10)

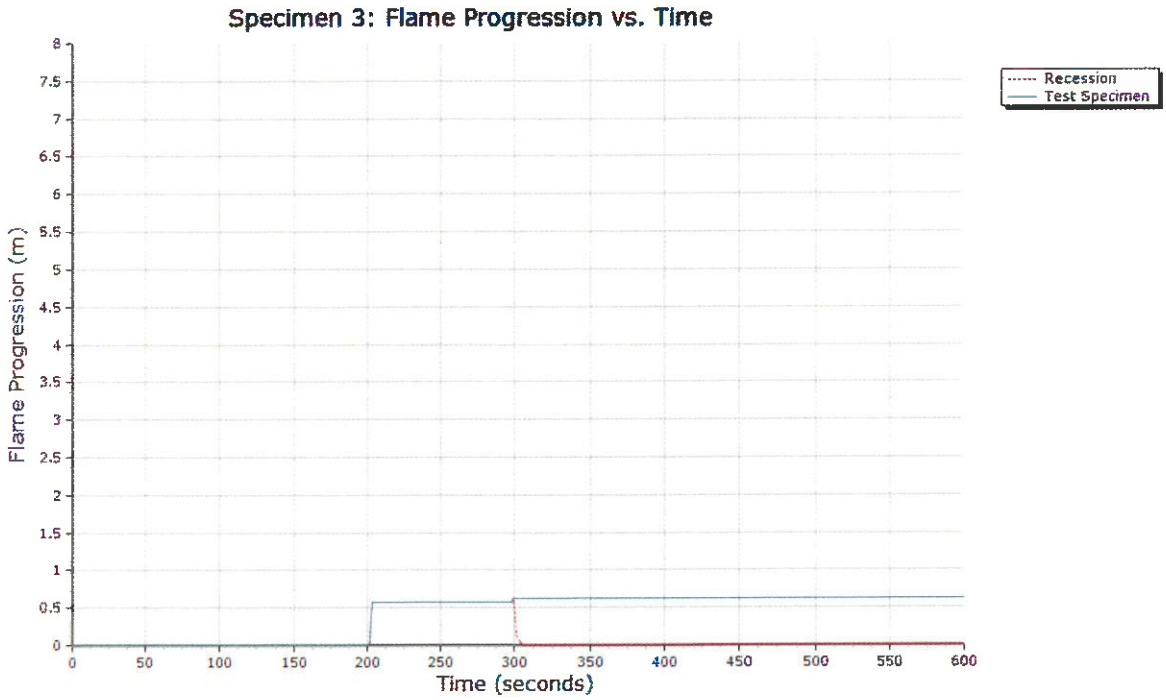
Test Method : CAN S-102
Test Report # : 3-45693-1-N1



SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45693-1-N1



SGS

Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/3/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	O
		PO#:		**Test Report:**	3-45694-0
		Email:	lh@kvadrat.dk		
	Denmark				

Key Test: CAN/ULC-S102 1444

Client's Identification:

Style: Mountain. Composition: 100% Polyester FR. Weight: 286 g/m².

LE: 2018 V 7/21 DK PC: ME CODE: I=1444 F=3072 CLEAN=1050 /dv

TEST PERFORMED: CAN/ULC-S102-10 - Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies

TEST CONDUCTED:

☒ Indicative
☐ Formal

PRODUCT CATEGORY: ☐ Composite Panel Material

BRIEF DESCRIPTION OF TEST METHOD: The method is designed to determine the relative burning characteristics of materials under specific test conditions. Results of less than three identical specimens are expressed in terms of Flame Spread Value (FSV) and Smoke Developed Value (SDV). Results of three or more replicate tests on identical specimens produce average values expressed as Flame Spread Rating (FSR) and Smoke Developed Classification (SDC).

SUMMARY OF TEST PROCEDURE: The tunnel is preheated to 85°C, as measured by the backwall-embedded thermocouple located 7090 mm downstream of the burner ports, and allowed to cool to 40°C, as measured by the backwall-embedded thermocouple located 4000 mm from the burners. At this time the tunnel lid is raised, and the test sample is placed along the ledges of the tunnel so as to form a continuous ceiling above the floor and then the lid is lowered. Upon ignition of the gas burners, the flame spread distance is observed and recorded every second. Flame spread distance versus time is plotted, ignoring any flame front recessions. Calculations are based on comparison with flame spread characteristics of select red oak, determined in calibration trials and arbitrarily established as 100. If the area under the curve (AT) is less than or equal to 29.7 m²min, FSV=1.85·AT; if greater, FSV=1640/(59.4-AT). The Smoke Developed Value is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, established as 0 and 100, respectively.

96 Allen Boulevard Suite D, Farmingdale, NY 11735 USA • Phone: (631) 293-8944 • Email: govmark.test.reports@sgs.com

SGS

Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/3/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	O
		PO#:		**Test Report:**	3-45694-0
		Email:	lh@kvadrat.dk		
	Denmark				
Key Test:	CAN/ULC-S102				1444

SAMPLE PREPARATION:

☐ The sample consisted of two sections of materials, each approximately 445 mm in width by 3658 mm in length butted together to form the requisite specimen length. The specimen was free laid (no adhesive) on top of a 6 mm fiberglass reinforced cement board substrate.

☒ Other: The test sample consisted of three 8 ft. sections butted end to end to make the 24 ft. length. The test specimen was laid over 2" hexagonal wire mesh and ¼" steel rods.

REPORTED AS:

☒ INDICATIVE (Single Specimen Test):

Flame Spread Value (FSV): 0
Smoke Developed Value (SDV): 35

☐ FORMAL (Average Value of three replicate tests rounded to the nearest multiple of five points):

Flame Spread Rating (FSR):
Smoke Developed Classification (SDC):

RESULTS:

Specimen #	Flame Spread Value	Smoke Developed Value	Burn Distance (meters)	Time (seconds)
1	0	35	0	0
2	NT	NT	NT	NT
3	NT	NT	NT	NT

OBSERVATIONS:

1. Flaming drip and burning on chamber floor.
2. NT
3. NT

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Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/3/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	O
		PO#:		**Test Report:**	3-45694-0
		Email:	lh@kvadrat.dk		
	Denmark				

Key Test: CAN/ULC-S102 1444

REMARKS: NT = Not tested.

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified above.

Theresa MacMillan
AUTHORIZED SIGNATURE
SGS NORTH AMERICA
/jab /dv

Theresa MacMillan

NOV 1 1 2021

Enclosure: 3 Graph Chart (Formal)

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SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method	: CAN S-102
Test Report #	: 3-45694-0-O
Date	: 11/3/2021
Client	: Kvadrat A/S
Operator	: Andrew Niemczyk
Details of Preparation	: The test sample consisted of three 8 ft. sections butted end to end to make the 24 ft. length. The specimen was laid over 2" hexagonal wire mesh screen and 1/4" rods.
Observations	: Flaming drip and burning on chamber floor

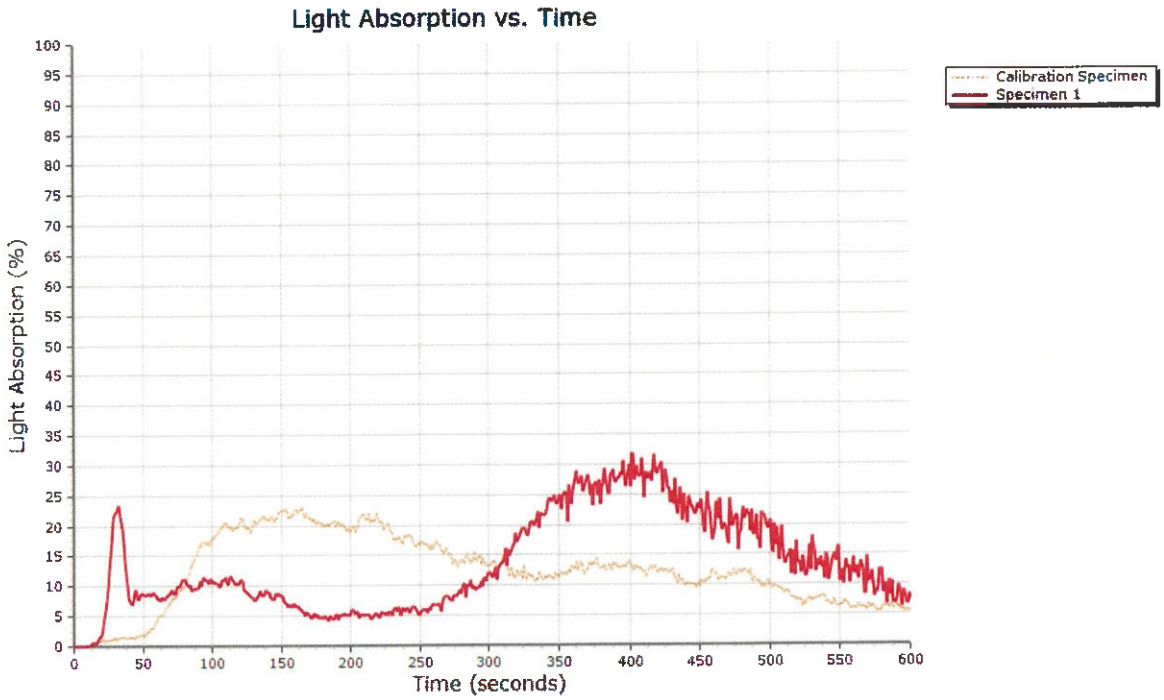
	Specimen 1
Area Under Flame Curve (m min)	0.00
Raw Flame Spread Value (m min)	0.00
Rounded Flame Spread Value (m min)	**0**
Ignition Time	**00:09 mm:ss**
Area Under Smoke Curve (%A min)	134.79
Raw Smoke Developed Value	109.03
Rounded Smoke Developed Value	**109**
Total Gas Flow(L)	1287.7
Total Gas Flow(ft^3)	45.5
Maximum Flame Front Achieved(m)	0 (@0s)

Flame Spread Rating : **0**
Smoke Developed Classification : **35**

SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45694-0-O

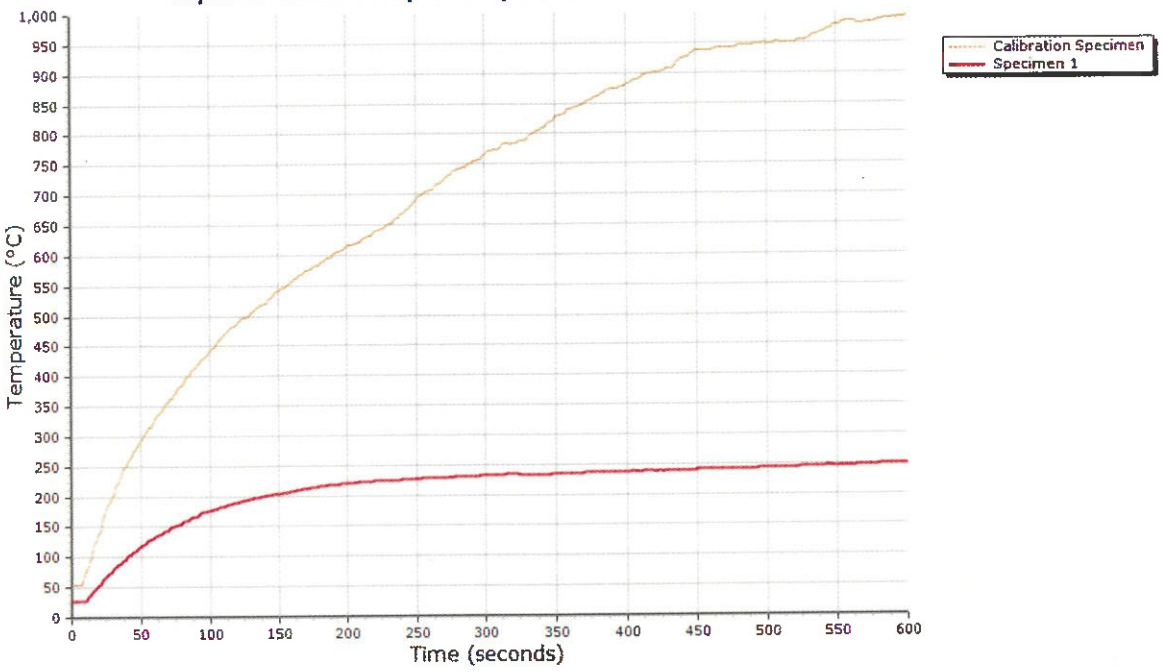


SGS GOVMARK

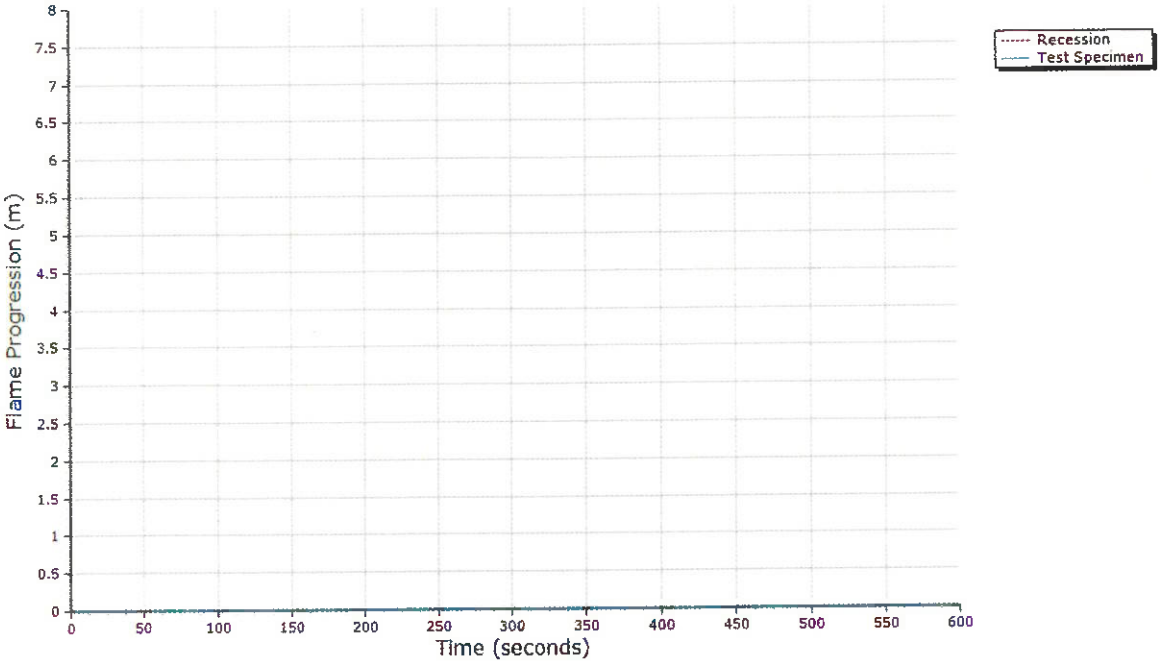
Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45694-0-O

Exposed Thermocouple Temperature vs. Time



Specimen 1: Flame Progression vs. Time



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Tested For:	**Lone Henriksen**	**Phone:**	**011 45 89 53 18 60**	**Received:**	**10/28/2021**
	Kvadrat A/S	**Fax:**		**Completed:**	**11/10/2021**
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	**01**
		PO#:		**Test Report:**	**3-45694-1**
		Email:	**lh@kvadrat.dk**		
	Denmark				

Key Test: **CAN/ULC-S102.2** **3072**

Client's Identification:

Style: Mountain. Composition: 100% Polyester FR. Weight: 286 g/m².

LE: 2018 V 09/18 PC: ME CODE: I=1375 F=2925 CLEAN=1000 /rb /dv

TEST PERFORMED: CAN/ULC-S102.2-18 - Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials

TEST CONDUCTED:

☐ Indicative
☒ Formal

PRODUCT CATEGORY: ☐ Composite Panel Material

BRIEF DESCRIPTION OF TEST METHOD: The method is designed to determine the relative burning characteristics of materials under specific test conditions. Results of less than three identical specimens are expressed in terms of Flame Spread Value (FSV) and Smoke Developed Value (SDV). Results of three or more replicate tests on identical specimens produce average values expressed as Flame Spread Rating (FSR) and Smoke Developed Classification (SDC).

SUMMARY OF TEST PROCEDURE: The tunnel is preheated to 85°C, as measured by the backwall-embedded thermocouple located 7090 mm downstream of the burner ports, and allowed to cool to 40°C, as measured by the backwall-embedded thermocouple located 4000 mm from the burners. At this time the tunnel lid is raised, and the test sample is placed along the floor of the tunnel so as to form a continuous surface and then the lid is lowered. Upon ignition of the gas burners, the flame spread distance is observed and recorded every second. Flame spread distance versus time is plotted, ignoring any flame front recessions. Calculations are based on comparison with flame spread characteristics of select red oak, determined in calibration trials and arbitrarily established as 100. If the area under the curve (AT) is less than or equal to 29.7 m²min, FSV=1.85·AT; if greater, FSV=1640/(59.4-AT). The Smoke Developed Value is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, established as 0 and 100, respectively.

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Tested For:	**Lone Henriksen**	**Phone:**	**011 45 89 53 18 60**	**Received:**	**10/28/2021**
	Kvadrat A/S	**Fax:**		**Completed:**	**11/10/2021**
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	**01**
		PO#:		**Test Report:**	**3-45694-1**
		Email:	**lh@kvadrat.dk**		
	Denmark				

Key Test: **CAN/ULC-S102.2** **3072**

SAMPLE PREPARATION:

☐ The sample consisted of two sections of materials, each approximately 445 mm in width by 3658 mm in length butted together to form the requisite specimen length. The specimen was free laid (no adhesive) on top of a 6 mm fiberglass reinforced cement board substrate.

☒ Other: The sample consisted of three sections butted end to end to make the 7316 mm length that was tested in the flooring configuration due to melting and dripping when tested in the ceiling configuration.

REPORTED AS:

☐ INDICATIVE (Single Specimen Test):

Flame Spread Value (FSV):
Smoke Developed Value (SDV):

☒ FORMAL (Average Value of three replicate tests):

Flame Spread Rating (FSR): 0
Smoke Developed Classification: 70

RESULTS:

Specimen #	Flame Spread Value	Smoke Developed Value	Burn Distance (meters)	Time (seconds)
1	0	65	0	0
2	0	66	0	0
3	0	72	0	0

OBSERVATIONS:

1. Specimen melted away then ignited.
2. Specimen melted away then ignited.
3. Specimen melted away then ignited.

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Tested For:	**Lone Henriksen**	**Phone:**	011 45 89 53 18 60	**Received:**	10/28/2021
	Kvadrat A/S	**Fax:**		**Completed:**	11/10/2021
	Lundbergsvej 10 DK-8400 Ebeltoft	**Mobile:**		**Code:**	01
		PO#:		**Test Report:**	3-45694-1
		Email:	lh@kvadrat.dk		
	Denmark				
Key Test:	**CAN/ULC-S102.2**				3072

REMARKS: None.

ACCEPTANCE CRITERIA: None cited.

CONCLUSION: Not applicable.

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified above.

Theresa MacMillan
AUTHORIZED SIGNATURE
SGS NORTH AMERICA
/jab tdv

Theresa MacMillan

NOV 11 2021

Enclosure: Graphs

SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method	: CAN S-102
Test Report #	: 3-45694-1-Q1
Date	: 11/10/2021
Client	: Kvadrat A/S
Operator	: Andrew Niemczyk
Details of Preparation	: The sample consisted of three sections butted end to end to make the 7316 mm length that was tested in the flooring configuration due to melting and dripping when tested in the ceiling configuration.
Observations	: Specimen melted away then ignited

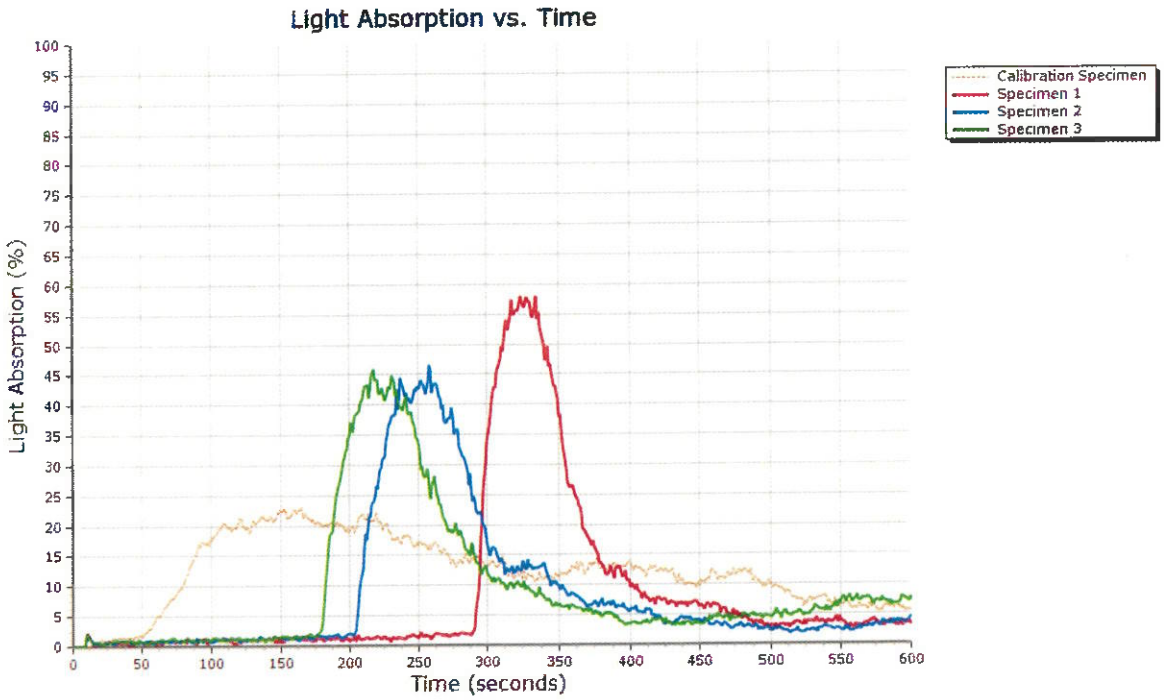
	Specimen 1	Specimen 2	Specimen 3
Area Under Flame Curve (m min)	0.00	0.00	0.00
Raw Flame Spread Value (m min)	0.00	0.00	0.00
Rounded Flame Spread Value (m min)	**0**	**0**	**0**
Ignition Time	**04:15 mm:ss**	**03:20 mm:ss**	**03:15 mm:ss**
Area Under Smoke Curve (%A min)	79.94	81.53	89.04
Raw Smoke Developed Value	64.67	65.95	72.02
Rounded Smoke Developed Value	**65**	**66**	**72**
Total Gas Flow(L)	1287.9	1287.8	1287.8
Total Gas Flow(ft^3)	45.5	45.5	45.5
Maximum Flame Front Achieved(m)	0 (@0s)	0 (@0s)	0 (@0s)

Flame Spread Rating : **0**
Smoke Developed Classification : **70**

SGS GOVMARK

Program: CAN S-102 (Version 1.10)

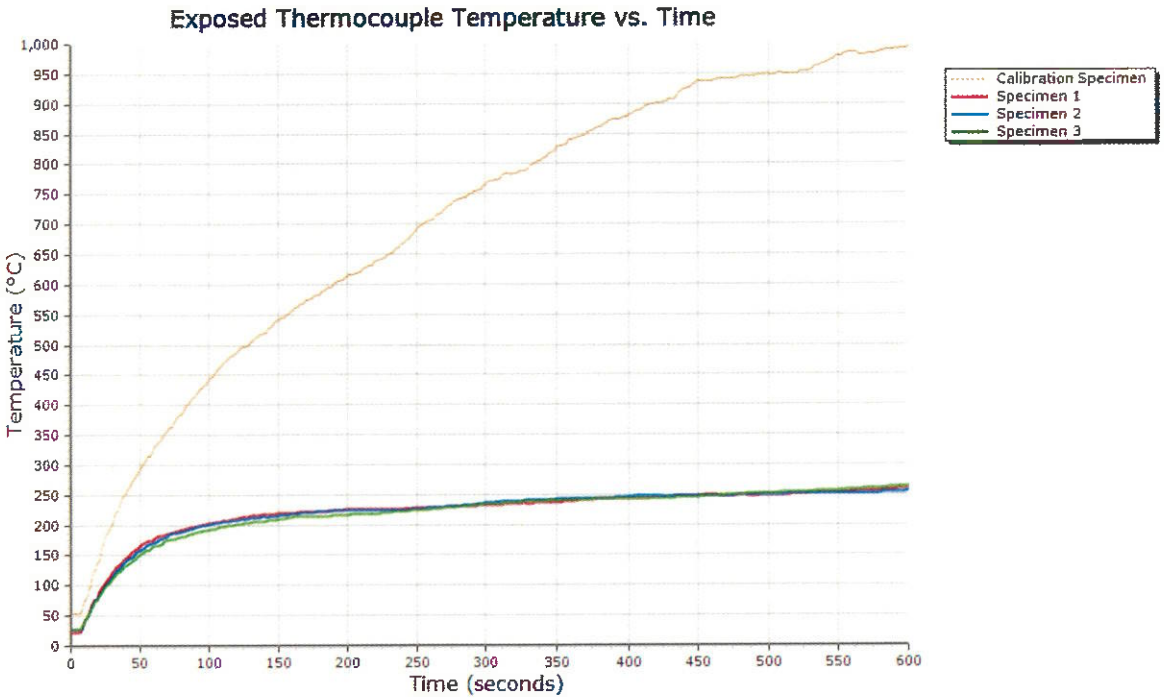
Test Method : CAN S-102
Test Report # : 3-45694-1-Q1

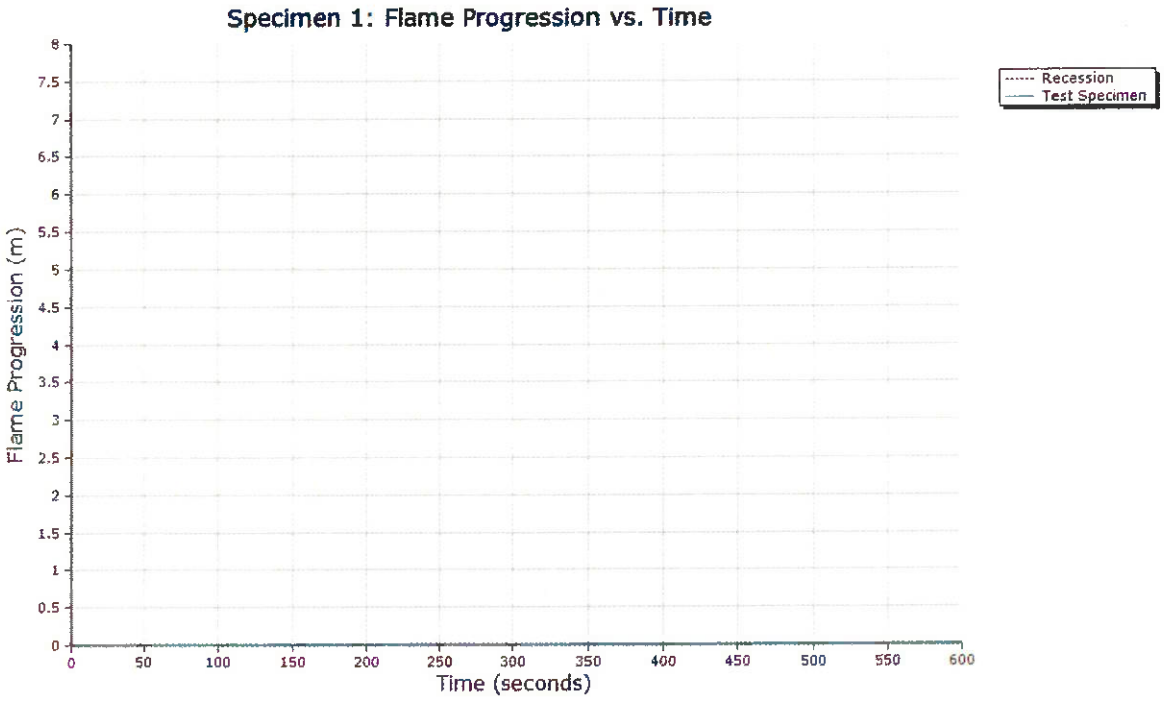


SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45694-1-Q1

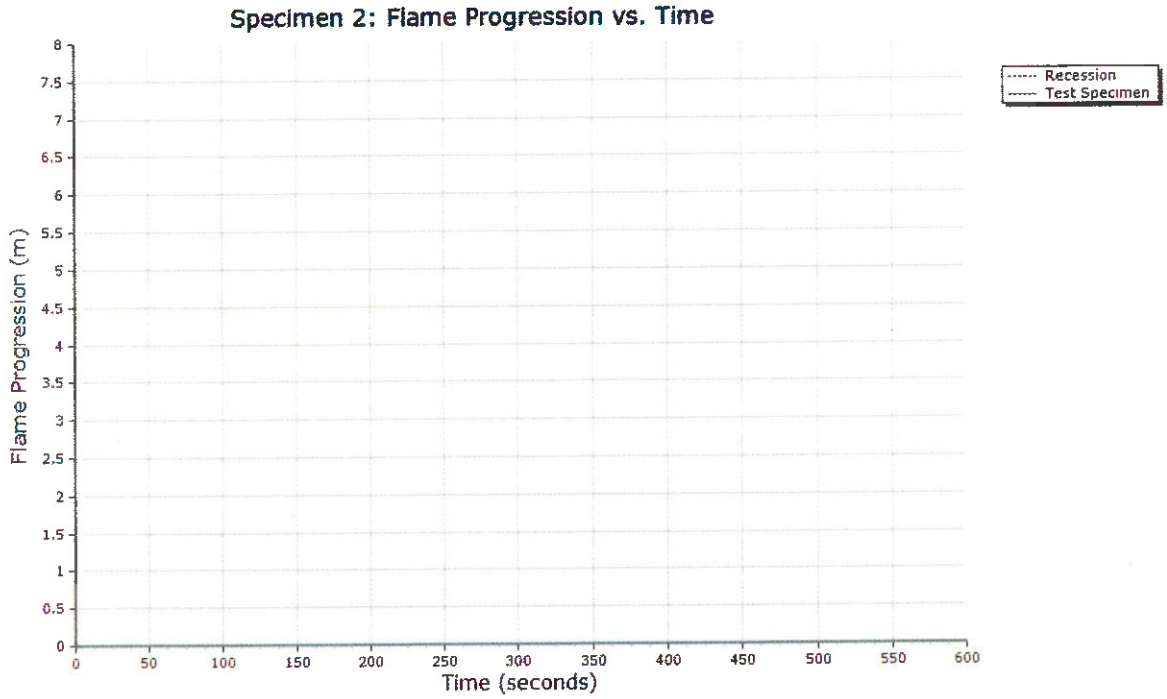




SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45694-1-Q1



SGS GOVMARK

Program: CAN S-102 (Version 1.10)

Test Method : CAN S-102
Test Report # : 3-45694-1-Q1

Specimen 3: Flame Progression vs. Time