

SISTEMAS TECHNOS DEL ACCESORIO Y COMPONENTES, S.L. TEST REPORT

SCOPE OF WORK

REPORT OF TESTING 4MM THICK STACKBOND® FR PANELS FOR COMPLIANCE WITH THE APPLICABLE REQUIREMENTS OF THE FOLLOWING CEITERIA: CAN/ULC S102-18, STANDARD METHOD OF TEST FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS AND ASSEMBLIES.

REPORT NUMBER

103972804-COQ-001 R0

TEST DAT(S)

06/03/19 - 06/03/19

ISSUE DATE

06/11/19

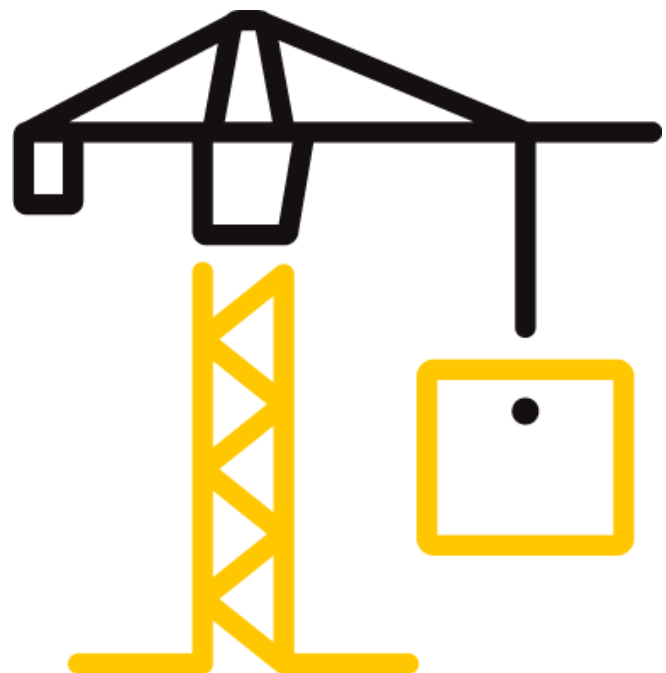
PAGES

14

DOCUMENT CONTROL NUMBER

GFT-OP-10c (AUGUST 27, 2018)

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TEST REPORT FOR SISTEMAS TECHNOS DEL ACCESORIO Y COMPONENTES, S.L.

Report No.: 103972804-COQ-001 R0

Date: 06/11/19

REPORT ISSUED TO

SISTEMAS TECN. DEL ACCESORIO Y COMPONENTES, SL
POLÍGONO INDUSTRIAL PICUSA LA MATANZA, S/N – 1900 - LA MATANZA, S/N
PADRON – A CORUNA- SPAIN

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Sistemas Tecn. Del Accesorio Y Componentes, S.L. to perform testing in accordance with CAN/ULC S102-18, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies., on their 4mm thick Stackbond® FR panels. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at Intertek Testing Services NA Ltd. (Intertek) test facility in Coquitlam, BC Canada.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

The samples 4mm thick Stackbond® FR panels were tested in accordance with CAN/ULC S102-18, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.

The product test results are presented in Section 10 of this report.

For INTERTEK B&C:

COMPLETED BY:	Sean Fewer	REVIEWED BY:	Greg Philp
TITLE:	Technician – B&C	TITLE:	Reviewer- B&C
SIGNATURE:		SIGNATURE:	
DATE:	06/11/19	DATE:	06/11/19

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SECTION 3

TEST METHOD(S)

The specimens were evaluated in accordance with the following:

CAN/ULC S102-18, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.

SECTION 4

MATERIAL SOURCE/INSTALLATION

Intertek representative, Juan Manuel Flores sampled and selected test samples on March 11, and 12, 2019. The sampling was conducted at Sistemas Tecn. Del Accesorio Y Componentes, S.L. facility located at Poligono Industrial La Rozada, Parcela 2, Calle Isaac Prado Bodelon – 24516 – Torel De los Vados – Parandones – Leon- Spain. The sample material was received at the Evaluation Center on May 7, 2109.

SECTION 5

EQUIPMENT

ASSET #	DESCRIPTION	MODEL	CAL DUE DATE
WH2189	Photocell	Huygen 856	5/14/20
WH 2190	Smoke Opacity Meter	Huygen	5/14/20
WH 2494	Data Logger	Yokogawa DA100	07/18/19

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Sean Fewer	Intertek B&C
Greg Philp	Intertek B&C
Marcos Garcia	Sistemas Tecn. Del Accesorio Y Componentes, S.L.

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SECTION 7

TEST CALCULATIONS

The results of the tests are expressed by indexes, which compare the characteristics of the sample under tests relative to that of select grade red oak flooring and inorganic-cement board.

(A) Flame Spread Rating:

This index relates to the rate of progression of a flame along a sample in the 25 foot tunnel. A natural gas flame is applied to the front of the sample at the start of the test and drawn along the sample by a draft kept constant for the duration of the test. An observer notes the progression of the flame front relative to time.

The test apparatus is calibrated such that the flame front for red oak flooring passes out the end of the tunnel in five minutes, thirty seconds (plus or minus 15 seconds).

(B) Smoke Developed:

A photocell is used to measure the amount of light, which is obscured by the smoke passing down the tunnel duct. When the smoke from a burning sample obscures the light beam, the output from the photocell decreases. This decrease with time is recorded and compared to the results obtained for red oak, which is defined to be 100.

SECTION 8

TEST SPECIMEN DESCRIPTION

Upon receipt of the samples at the Intertek Coquitlam laboratory they were placed in a conditioning room where they remained in an atmosphere of $23 \pm 3^{\circ}\text{C}$ ($73.4 \pm 5^{\circ}\text{F}$) and $50 \pm 5\%$ relative humidity.

The sample material consisted of 24 in. wide by 82 in and 42 in. long panels and was identified as "4mm thick Stackbond® FR panels" and consisted of an aluminum face and backing with an extruded polyethylene core.

For each trial run, three 8 ft. long by 24 in. wide sample panels were butted together and placed on the upper ledge of the flame spread tunnel to form the required 24 ft. sample length. A layer of 6 mm reinforced cement board was placed over top of the samples, the tunnel lid was lowered into place, and the samples were then tested in accordance with CAN/ULC S102-18.

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SECTION 9**TEST RESULTS****(A) Flame Spread**

The resultant flame spread ratings are as follows:

(Rating rounded to nearest 5)

4mm thick Stackbond® FR panels	Flame Spread	Flame Spread Rating
Run 1	0	0
Run 2	0	
Run 3	0	

(B) Smoke Developed

The areas beneath the smoke developed curve and the related classifications are as follows:

(Classification rounded to nearest 5)

4mm thick Stackbond® FR panels	Smoke Developed	Smoke Developed Classification
Run 1	0	0
Run 2	0	
Run 3	1	

(C) Observations

During the test runs, There was no visible surface ignition. This was the case for all three test runs.

SECTION 10**CONCLUSION**

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The samples of 4mm thick Stackbond® FR panels submitted by Sistemas Tecn. Del Accesorio Y Componentes, S.L. exhibited the following flame spread characteristics when tested in accordance with CAN/ULC S102-18, Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.

A series of three test runs of material was conducted to conform to the requirements of the National Building Code of Canada.

Sample Material	Flame Spread Rating	Smoke Developed Classification
4mm thick Stackbond® FR panels	0	0

The conclusions of this test report may be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

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SECTION 11

TEST DATA (6 PAGES)

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CAN/ULC S102-18 DATA SHEETS

Run 1

Standard: ULC S102

Page 1 of 2

Client: STAC

Date: 06 03 2019

Project Number: 103816489

Test Number: 1

Operator: Sean Fewer

Specimen ID: 4 mm Aluminum panel with FR Core

TEST RESULTS

FLAMESPREAD INDEX: 0

SMOKE DEVELOPED INDEX: 0

SPECIMEN DATA . . .

Time to Ignition (sec): 0

Time to Max FS (sec): 0

Maximum FS (mm): 0.0

Time to 527 C (sec): Never Reached

Time to End of Tunnel (sec): Never Reached

Max Temperature (C): 258

Time to Max Temperature (sec): 596

Total Fuel Burned (cubic feet): 45.70

FS*Time Area (M*min): 0.0

Smoke Area (%A*min): 0.2

Unrounded FSI: 0.0

Unrounded SDI: 0.1

CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 48.0

Red Oak Smoke Area (%A*min): 157.5

Tested By: SF

Reviewed By: [Signature]

TEST REPORT FOR SISTEMAS TECHNOS DEL ACCESORIO Y COMPONENTES, S.L.

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CAN/ULC S102-18 DATA SHEETS

Run 1

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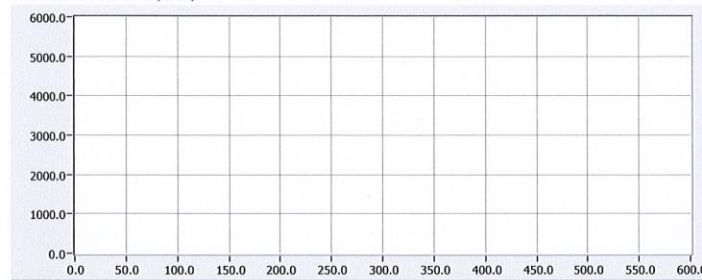
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Specimen ID: 4 mm Aluminum panel with FR Core

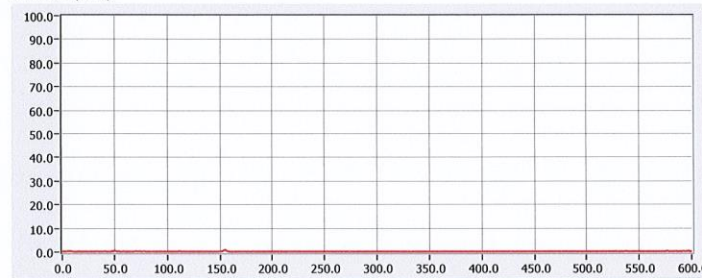
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Standard: ULC S102

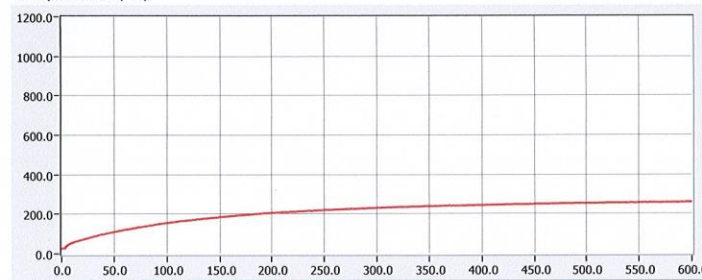
FLAME SPREAD (MM)



Smoke (%A)



Temperature (°C)



Time (sec)

600

Tested By: SF

Reviewed By: [Signature]

TEST REPORT FOR SISTEMAS TECHNOS DEL ACCESORIO Y COMPONENTES, S.L.

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CAN/ULC S102-18 DATA SHEETS

Run 2

Standard: ULC S102

Page 1 of 2

Client: STAC

Date: 06 03 2019

Project Number: 103816489

Test Number: 2

Operator: Sean Fewer

Specimen ID: 4 mm Aluminum panel with FR Core

TEST RESULTS

FLAMESPREAD INDEX: 0

SMOKE DEVELOPED INDEX: 0

SPECIMEN DATA . . .

Time to Ignition (sec): 0

Time to Max FS (sec): 0

Maximum FS (mm): 0.0

Time to 527 C (sec): Never Reached

Time to End of Tunnel (sec): Never Reached

Max Temperature (C): 261

Time to Max Temperature (sec): 593

Total Fuel Burned (cubic feet): 45.70

FS*Time Area (M*min): 0.0

Smoke Area (%A*min): 0.5

Unrounded FSI: 0.0

Unrounded SDI: 0.3

CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 48.0

Red Oak Smoke Area (%A*min): 157.5

Tested By: SF

Reviewed By: [Signature]

TEST REPORT FOR SISTEMAS TECHNOS DEL ACCESORIO Y COMPONENTES, S.L.

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CAN/ULC S102-18 DATA SHEETS

Run 2

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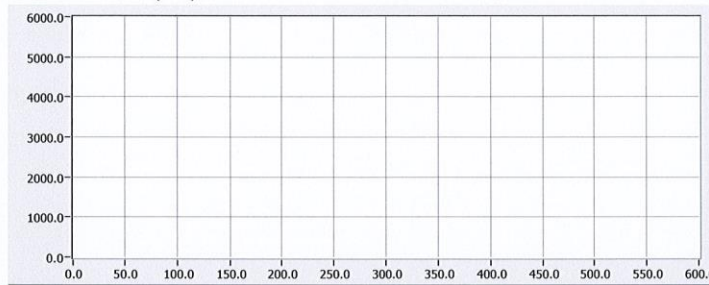
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Specimen ID: 4 mm Aluminum panel with FR Core

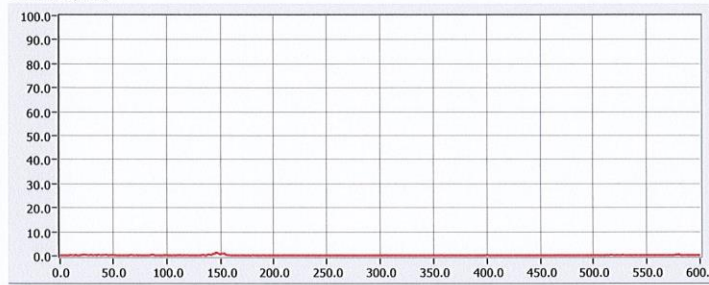
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Standard: ULC S102

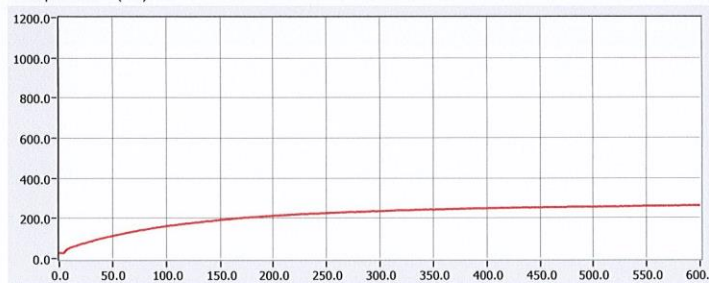
FLAME SPREAD (MM)



Smoke (%A)



Temperature (°C)



Time (sec)

600

Tested By: SP

Reviewed By: [Signature]

TEST REPORT FOR SISTEMAS TECHNOS DEL ACCESORIO Y COMPONENTES, S.L.

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CAN/ULC S102-18 DATA SHEETS

Run 3

Standard: ULC S102

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Client: STAC

Date: 06 03 2019

Project Number: 103816489

Test Number: 3

Operator: Sean Fewer

Specimen ID: 4 mm Aluminum panel with FR Core

TEST RESULTS

FLAMESPREAD INDEX: 0

SMOKE DEVELOPED INDEX: 0

SPECIMEN DATA . . .

Time to Ignition (sec): 0

Time to Max FS (sec): 0

Maximum FS (mm): 0.0

Time to 527 C (sec): Never Reached

Time to End of Tunnel (sec): Never Reached

Max Temperature (C): 262

Time to Max Temperature (sec): 593

Total Fuel Burned (cubic feet): 45.70

FS*Time Area (M*min): 0.0

Smoke Area (%A*min): 0.9

Unrounded FSI: 0.0

Unrounded SDI: 0.6

CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 48.0

Red Oak Smoke Area (%A*min): 157.5

Tested By: SF

Reviewed By: [Signature]

TEST REPORT FOR SISTEMAS TECHNOS DEL ACCESORIO Y COMPONENTES, S.L.

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CAN/ULC S102-18 DATA SHEETS

Run 3

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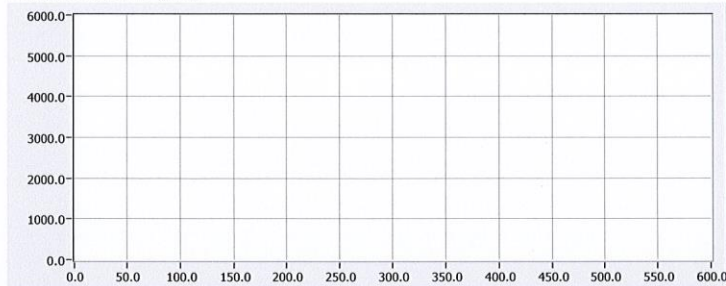
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Specimen ID: 4 mm Aluminum panel with FR Core

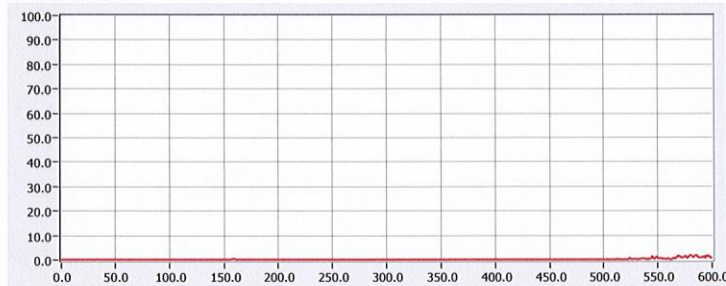
Test No.: 3

Standard: ULC S102

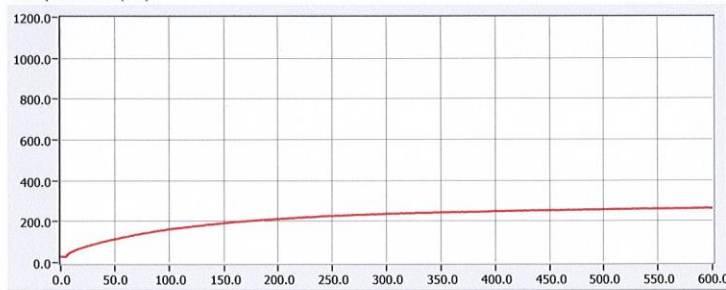
FLAME SPREAD (MM)



Smoke (%A)



Temperature (°C)



Time (sec)

600

Tested By: SF

Reviewed By: [Signature]

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SECTION 12 PHOTOGRAPHS



Photo No. 1
Pre Test



Photo No. 2
Post Test

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SECTION 13

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	06/11/19	N/A	Original Report Issue