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ARCONIC ARCHITECTURAL PRODUCTS
TEST REPORT

SCOPE OF WORK
REPORT OF TESTING 4MM THICK REYNOBOND FR PANEL CORE 12 FOR COMPLIANCE WITH THE APPLICABLE REQUIREMENTS OF THE FOLLOWING CRITERIA: CAN/ULC S102-18, STANDARD METHOD OF TEST FOR SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS AND ASSEMBLIES.

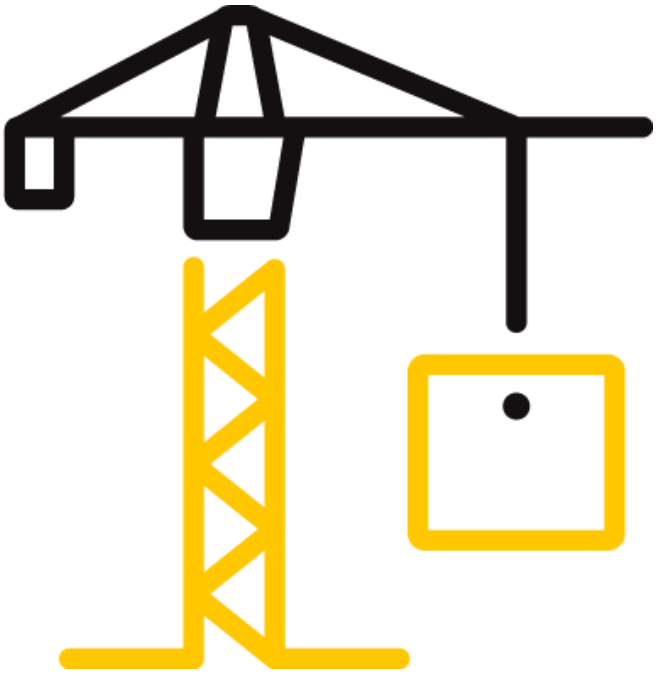
REPORT NUMBER
105251812COQ-001 R0

TEST DATE(S)
01/24/23 - 01/24/23

ISSUE DATE
01/30/23

PAGES
16

DOCUMENT CONTROL NUMBER
GFT-OP-10c (09/29/20)



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TEST REPORT FOR ARCONIC ARCHITECTURAL PRODUCTS
Report No.: 105251812COQ-001 R0
Date: 01/30/23

REPORT ISSUED TO

ARCONIC ARCHITECTURAL PRODUCTS
50 INDUSTRIAL BLVD
EASTMAN, GA 31 USA

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Arconic Architectural Products 50 Industrial Blvd Eastman, GA 31 USA. 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 Reynobond FR panels with Core 12. 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.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule also called “Shared Risk approach,” of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens (where required by Certification or Accreditation bodies), or other pertinent project documentation, will be retained for the entire test record retention period.

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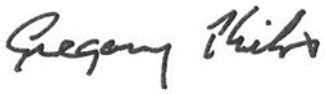
SECTION 2
SUMMARY OF TEST RESULTS

The samples 4mm thick Reynobond FR panels with Core 12 submitted by Arconic Architectural Products 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:	01/30/23	**DATE:**	01/30/23

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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

Samples were submitted to Intertek directly from the client and were not independently selected for testing and Intertek accepts no responsibility for any inaccuracies provided.

SECTION 5
EQUIPMENT

ASSET #	DESCRIPTION	MODEL	CAL DUE DATE
WH2189	Photocell	Huygen 856	11/04/23
WH 2190	Smoke Opacity Meter	Huygen	11/04/23
WH 2494	Data Logger	Phidgets DAQ 2020	11/04/23
	FS Tunnel (S102)	N/A	03/09/23

SECTION 6
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Sean Fewer	Intertek B&C

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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 7620 mm 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°C (73.4 $\pm$ 5°F) and 50 $\pm$ 5% relative humidity.

The sample material consisted of 610mm wide by 2440mm wide. was identified as 4mm thick Reynobond FR panels with Core 12.

For each trial run, six 610mm wide by 1220mm of sample material was placed on the upper ledge of the flame spread tunnel to form the required 7315mm 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 Reynobond FR panels with Core 12	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 Reynobond FR panels with Core 12	Smoke Developed	Smoked Developed Classification
Run 1	5	5
Run 2	10	
Run 3	6	

(C) Observations

During the test runs, surface ignition occurred between 140 and 168 seconds. The flame then began to progress along the sample length until it reached the maximum flame spread. This was the case for all three test runs.

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SECTION 10
CONCLUSION

The samples of 4mm thick Reynobond FR panels with Core 12 submitted by Arconic Architectural Products 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 Reynobond FR panels with Core 12	0	5

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.

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SECTION 11

TEST DATA (6 PAGES)

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TEST REPORT FOR ARCONIC ARCHITECTURAL PRODUCTS
Report No.: 105251812COQ-001 R0
Date: 01/30/23

CAN/ULC S102-18 DATA SHEETS
Run 1

Standard: ULC S102

Lab ID: Intertek Coquitlam Fire Laboratory
Client: Arconic
Date: 24 Jan 2023
Project Number: 105251812
Test Number: 1
Operator: Sean Fewer

Specimen ID and Description:

4mm Reynobond FR with Core 12

TEST RESULTS

FLAMESPREAD INDEX: 0.000
SMOKE DEVELOPED INDEX: 5.000

SPECIMEN DATA

Time to Ignition (sec): 168.191
Time to Max Flame Spread (min): 0.000
Maximum Flame Spread (mm): 0.000
Time to 527 C / 980 F (sec): 0.000
Max Temperature (deg F or C as per test standard): 278.890
Time to Max Temperature (sec): 598.192
Total Fuel Burned (cubic feet): 50.669

Flame Spread*Time Area (M*min): 0.000
Smoke Area (%A*min): 7.665
Unrounded FSI: 0.000
Unrounded SDI: 5.101

CALIBRATION DATA

Time to Ignition of Last Red Oak (sec): 47

Calibrated Smoke Area (%A*min): 150.252

15 point Heptane average for E84-19b
5 point Red Oak average for S102

Tested by: S.F. Reviewed by:

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TEST REPORT FOR ARCONIC ARCHITECTURAL PRODUCTS
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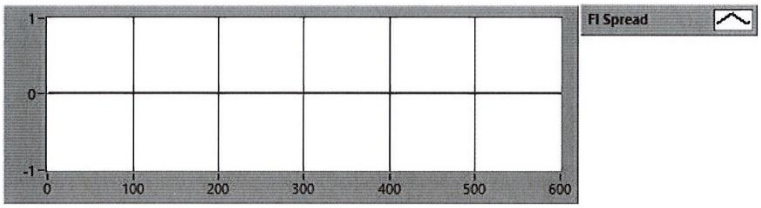
Date: 01/30/23

CAN/ULC S102-18 DATA SHEETS
Run 1

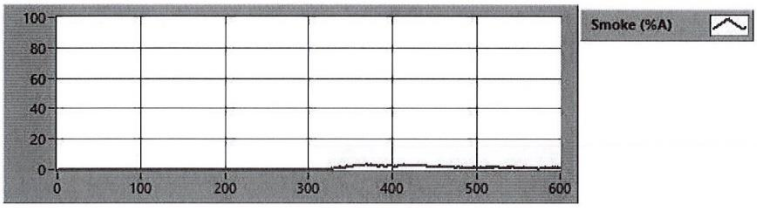
Client: Arconic | Project Number: 105251812

Test Number: 1 | Test Standard: ULC S102

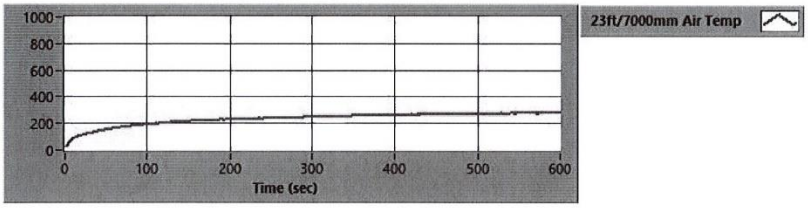
FLAME SPREAD



SMOKE (%A)



TEMPERATURE



Tested by: S.F. Reviewed by:

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TEST REPORT FOR ARCONIC ARCHITECTURAL PRODUCTS
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Date: 01/30/23

CAN/ULC S102-18 DATA SHEETS
Run 2

Standard: ULC S102

Lab ID: Intertek Coquitlam Fire Laboratory
Client: Arconic
Date: 24 Jan 2023
Project Number: 105251812
Test Number: 2
Operator: Sean Fewer

Specimen ID and Description:

4mm Reynobond FR with Core 12

TEST RESULTS

FLAMESPREAD INDEX: 0.000
SMOKE DEVELOPED INDEX: 10.000

SPECIMEN DATA

Time to Ignition (sec): 141.315
Time to Max Flame Spread (min): 0.000
Maximum Flame Spread (mm): 0.000
Time to 527 C / 980 F (sec): 0.000
Max Temperature (deg F or C as per test standard): 276.890
Time to Max Temperature (sec): 589.316
Total Fuel Burned (cubic feet): 50.668

Flame Spread*Time Area (M*min): 0.000
Smoke Area (%A*min): 15.018
Unrounded FSI: 0.000
Unrounded SDI: 9.995

CALIBRATION DATA

Time to Ignition of Last Red Oak (sec): 47

Calibrated Smoke Area (%A*min): 150.252

15 point Heptane average for E84-19b
5 point Red Oak average for S102

Tested by: S.F. Reviewed by:

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TEST REPORT FOR ARCONIC ARCHITECTURAL PRODUCTS
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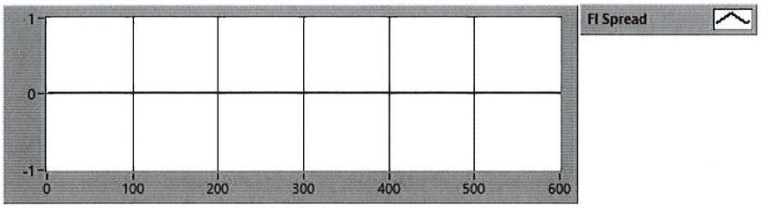
CAN/ULC S102-18 DATA SHEETS
Run 2

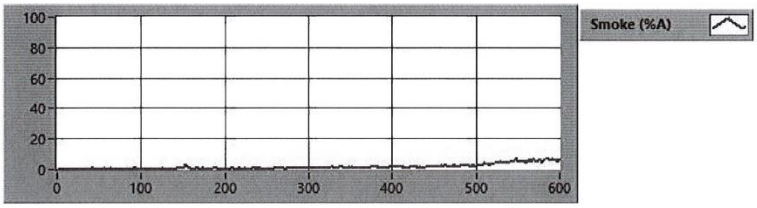
Client: Arconic | Project Number: 105251812

Test Number: 2 | Test Standard: ULC S102

FLAME SPREAD



SMOKE (%A)



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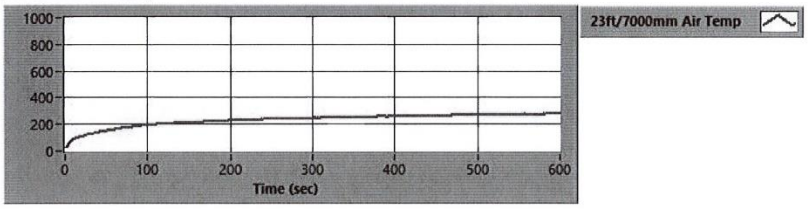

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TEST REPORT FOR ARCONIC ARCHITECTURAL PRODUCTS
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CAN/ULC S102-18 DATA SHEETS
Run 3

Standard: ULC S102

Lab ID: Intertek Coquitlam Fire Laboratory
Client: Arconic
Date: 24 Jan 2023
Project Number: 105251812
Test Number: 3
Operator: Sean Fewer

Specimen ID and Description:

4mm Reynobond FR with Core 12

TEST RESULTS

FLAMESPREAD INDEX: 0.000
SMOKE DEVELOPED INDEX: 6.000

SPECIMEN DATA

Time to Ignition (sec): 139.927
Time to Max Flame Spread (min): 0.000
Maximum Flame Spread (mm): 0.000
Time to 527 C / 980 F (sec): 0.000
Max Temperature (deg F or C as per test standard): 271.240
Time to Max Temperature (sec): 590.927
Total Fuel Burned (cubic feet): 50.636

Flame Spread*Time Area (M*min): 0.000
Smoke Area (%A*min): 8.531
Unrounded FSI: 0.000
Unrounded SDI: 5.677

CALIBRATION DATA

Time to Ignition of Last Red Oak (sec): 47

Calibrated Smoke Area (%A*min): 150.252

15 point Heptane average for E84-19b
5 point Red Oak average for S102

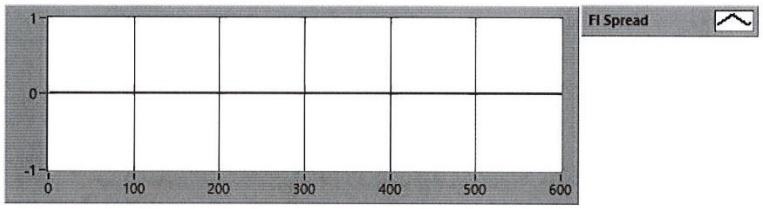
Tested by: S.F. Reviewed by:

TEST REPORT FOR ARCONIC ARCHITECTURAL PRODUCTS
Report No.: 105251812COQ-001 R0
Date: 01/30/23

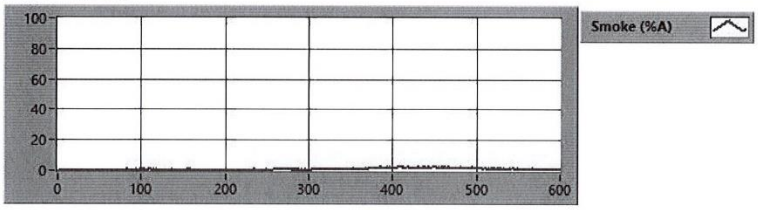
CAN/ULC S102-18 DATA SHEETS
Run 3

Client: Arconic
Project Number: 105251812
Test Number: 3
Test Standard: ULC S102

FLAME SPREAD



SMOKE (%A)



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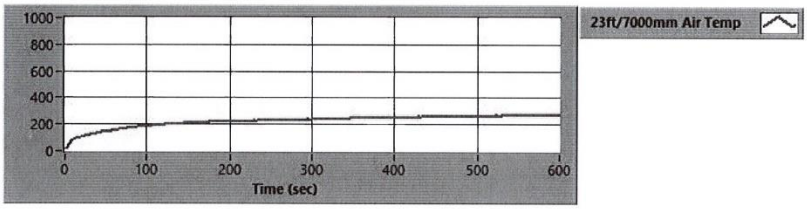

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TEST REPORT FOR ARCONIC ARCHITECTURAL PRODUCTS
Report No.: 105251812COQ-001 R0
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SECTION 12
PHOTOGRAPHS

Photo No. 1
Pre-Test

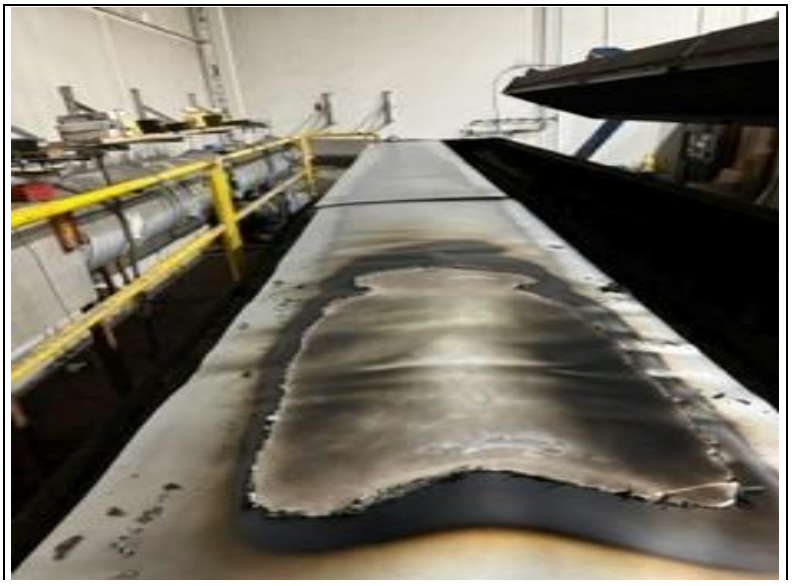

Photo No. 2
Post-Test

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SECTION 13
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	01/30/23	N/A	Original Report Issue