

HARDWOODS SPECIALTY PRODUCTS TEST REPORT

SCOPE OF WORK

REPORT OF TESTING ON ¾ INCH ECHOWOOD PANEL 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

105105266COQ-001B R0

TEST DATE(S)

07/19/22

ISSUE DATE

08/19/22

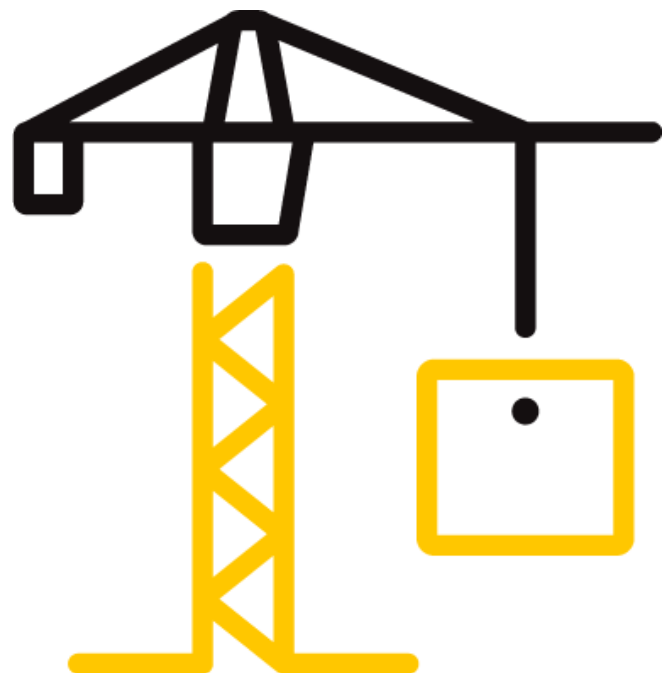
PAGES

17

DOCUMENT CONTROL NUMBER

GFT-OP-10c (09/29/20)

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TEST REPORT FOR HARDWOODS SPECIALTY PRODUCTS

Report No.: 105105266COQ-001B R0

Date: 08/19/22

REPORT ISSUED TO

Hardwoods Speciality Products
27321 58th Crescent
Langley, BC Canada
V4W 3W7

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Hardwoods Specialty Products at 27321 58th Crescent Langley, BC 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 ¾ inch Echowood Panel. 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 at 1500 Brigantine Drive Coquitlam, BC Canada.

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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 of ¾ inch Echowood Panel submitted by Hardwoods Specialty 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:	Kal Kooner
TITLE:	Technician B&C	TITLE:	Reviewer- B&C
SIGNATURE:		SIGNATURE:	
DATE:	08/19/22	DATE:	08/19/22
			EGBC Permit No.: 1000953

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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.

The test samples were received by the test facility on 06/27/2022. (Coquitlam ID# VAN2112291515-001).

SECTION 5

EQUIPMENT

ASSET #	DESCRIPTION	MODEL	CAL DUE DATE
WH2189	Photocell	Huygen 856	11/05/22
WH 2190	Smoke Opacity Meter	Huygen	11/05/22
WH 1052	Data Logger	Phidgets DAQ 2020	11/05/22
WH 2190	FS Tunnel	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 25 ft. 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 was identified by the client as $\frac{3}{4}$ inch Echowood Panel. The samples measured approximately $\frac{3}{4}$ in. thick by 2 ft. wide by 8 ft. long panels.

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)

¾ inch Echowood Panel	Flame Spread	Flame Spread Rating
Run 1	112	110
Run 2	110	
Run 3	101	

(B) Smoke Developed

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

(Classification rounded to nearest 5)

¾ inch Echowood Panel	Smoke Developed	Smoke Developed Classification
Run 1	91	90
Run 2	102	
Run 3	83	

Observations

During the test runs, surface ignition occurred approximately 78 to 80 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 ¾ inch Echowood Panel submitted by Hardwoods Specialty 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
¾ inch Echowood Panel	110	90

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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CAN/ULC S102-18 DATA SHEETS

Run 1

Page 1 of 2

Standard: ULC S102

Lab ID: Intertek Coquitlam Fire Laboratory
Client: Hardwood Specialty Products
Date: 19 Jul 2022
Project Number: 105105266
Test Number: 1
Operator: Sean Fewer

Specimen ID and Description:

3/4 inch Echowood panel

TEST RESULTS

FLAMESPREAD INDEX: 112.000
SMOKE DEVELOPED INDEX: 91.000

SPECIMEN DATA

Time to Ignition (sec): 78.537
Time to Max Flame Spread (min): 3.442
Maximum Flame Spread (ft): 5.940
Time to 527 C / 980 F (sec): 6.576
Max Temperature (deg F or C as per test standard): 617.800
Time to Max Temperature (sec): 566.537
Total Fuel Burned (cubic feet): 50.602

Flame Spread*Time Area (M*min): 44.813
Smoke Area (%A*min): 137.433
Unrounded FSI: 112.426
Unrounded SDI: 91.468

CALIBRATION DATA

Time to Ignition of Last Red Oak (sec): 43
Calibrated Smoke Area (%A*min): 150.252

15 point Heptane average for E84-21a
5 point Red Oak average for S102

Tested by: SP

Reviewed by: _____

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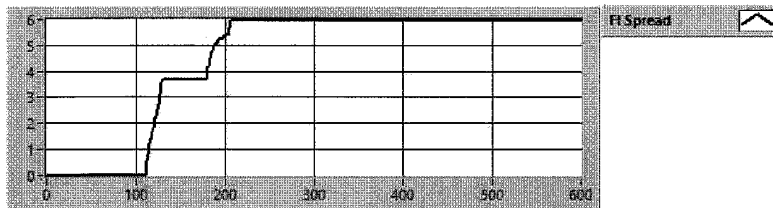
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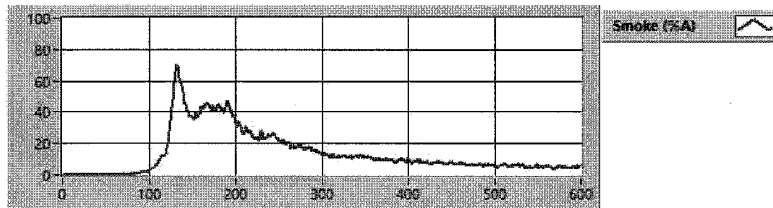
Page 2 of 2

Client: Hardwood Specialty Products Project Number: 105105266
Test Number: 1 Test Standard: ULC S102

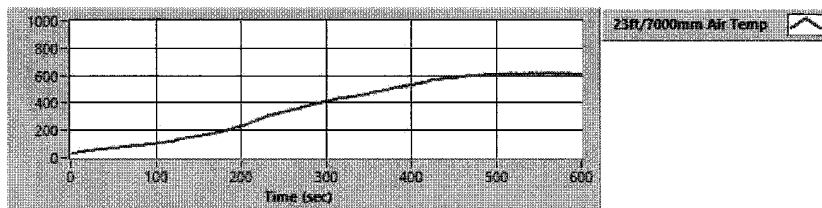
FLAME SPREAD



SMOKE (%A)



TEMPERATURE



Tested by: SF

Reviewed by: _____

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CAN/ULC S102-18 DATA SHEETS Run 2

Page 1 of 2

Standard: ULC S102

Lab ID: Intertek Coquitlam Fire Laboratory
Client: Hardwoods Specialty Products
Date: 19 Jul 2022
Project Number: 105105266
Test Number: 2
Operator: Sean Fewer

Specimen ID and Description:

3/4 inch Echowood panel

TEST RESULTS

FLAMESPREAD INDEX: 110.000
SMOKE DEVELOPED INDEX: 102.000

SPECIMEN DATA

Time to Ignition (sec): 80.762
Time to Max Flame Spread (min): 3.746
Maximum Flame Spread (ft): 5.940
Time to 527 C / 980 F (sec): 5.929
Max Temperature (deg F or C as per test standard): 606.420
Time to Max Temperature (sec): 513.763
Total Fuel Burned (cubic feet): 50.564

Flame Spread*Time Area (M*min): 44.551
Smoke Area (%A*min): 153.288
Unrounded FSI: 110.447
Unrounded SDI: 102.021

CALIBRATION DATA

Time to Ignition of Last Red Oak (sec): 43
Calibrated Smoke Area (%A*min): 150.252

15 point Heptane average for E84-21a
5 point Red Oak average for S102

Tested by: SP

Reviewed by: _____

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CAN/ULC S102-18 DATA SHEETS

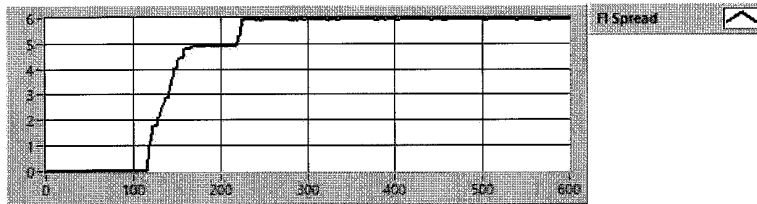
Run 2

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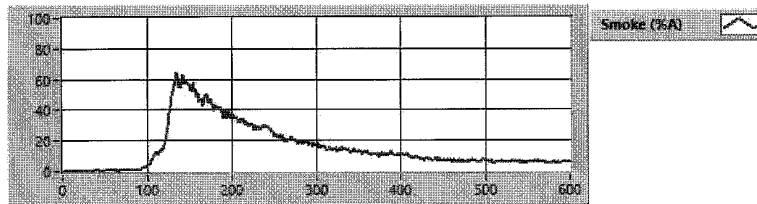
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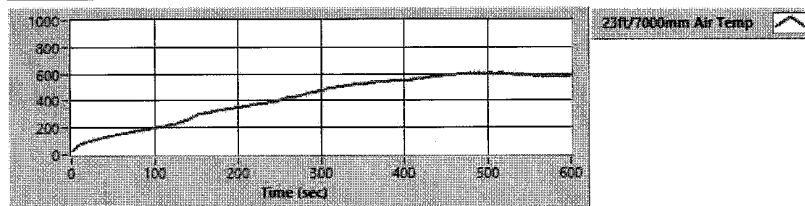
FLAME SPREAD



SMOKE (%A)



TEMPERATURE



Tested by: SF

Reviewed by: _____

TEST REPORT FOR HARDWOODS SPECIALTY PRODUCTS

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CAN/ULC S102-18 DATA SHEETS

Run 3

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Standard: ULC S102

Lab ID: Intertek Coquitlam Fire Laboratory
Client: Hardwoods Specialty Products
Date: 19 Jul 2022
Project Number: 105105266
Test Number: 3
Operator: Sean Fewer

Specimen ID and Description:

3/4 inch Echowood panel

TEST RESULTS

FLAMESPREAD INDEX: 101.000
SMOKE DEVELOPED INDEX: 83.000

SPECIMEN DATA

Time to Ignition (sec): 80.504
Time to Max Flame Spread (min): 3.825
Maximum Flame Spread (ft): 5.940
Time to 527 C / 980 F (sec): 6.592
Max Temperature (deg F or C as per test standard): 650.270
Time to Max Temperature (sec): 583.503
Total Fuel Burned (cubic feet): 50.297

Flame Spread*Time Area (M*min): 43.165
Smoke Area (%A*min): 124.607
Unrounded FSI: 101.018
Unrounded SDI: 82.932

CALIBRATION DATA

Time to Ignition of Last Red Oak (sec): 43
Calibrated Smoke Area (%A*min): 150.252

15 point Heptane average for E84-21a
5 point Red Oak average for S102

Tested by: SF

Reviewed by: _____

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CAN/ULC S102-18 DATA SHEETS

Run 3

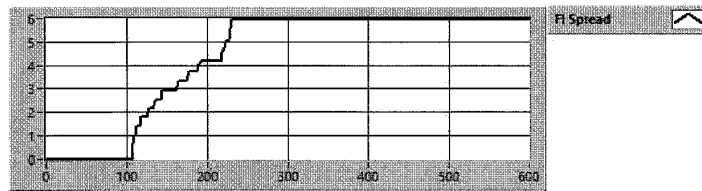
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Client: Hardwoods Specialty Products Project Number: 105105266

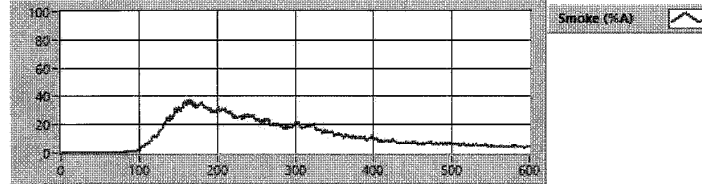
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Test Standard: ULC S102

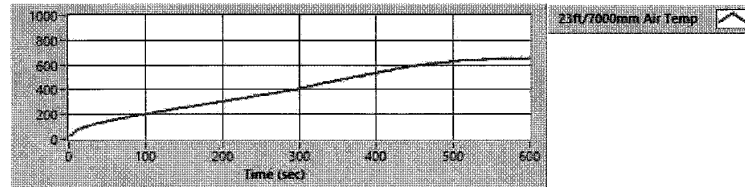
FLAME SPREAD



SMOKE (%A)



TEMPERATURE



Tested by: SE

Reviewed by: _____

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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	SECTION	REVISION
0	08/19/22	N/A	Original Report Issue