

AKUSTUS INDUSTRIES INC.

TEST REPORT

SCOPE OF WORK

Report of testing 9mm thick Sereno Panels with FR Treatment for compliance with the applicable requirements of the following criteria: CAN/ULC S102.2-10, Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies

REPORT NUMBER

103239523COOQ-004

ISSUE DATE

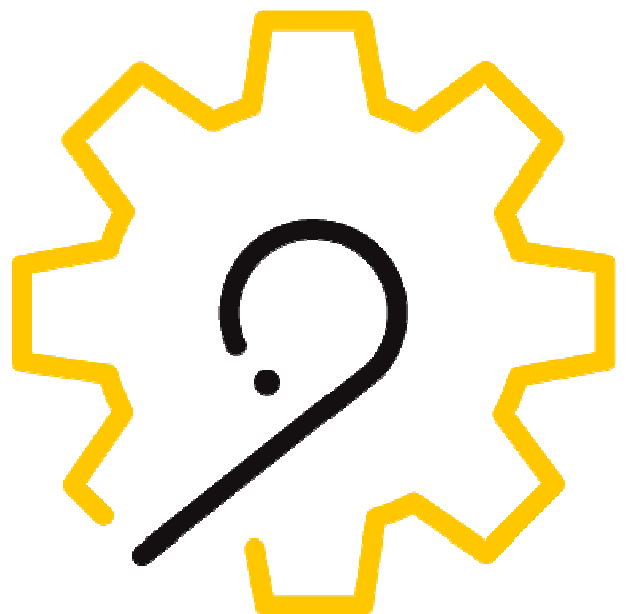
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TEST REPORT FOR AKUSTUS INDUSTRIES INC.

Report No.: 103239523
Date: November 24, 2017

CONCLUSION

The samples of Sereno Panels with FR Treatment, submitted by Akustus Industries Inc., were tested in accordance with CAN/ULC S102.2-10, *Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies*.

The product test results are presented in Section 7 of this report.

Salvatore Balletta
TECHNICIAN
BUILDING PRODUCTS

Greg Philp
REVIEWER
BUILDING PRODUCTS CANADA

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SECTION 1

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SECTION 2

OBJECTIVE

Intertek Testing Services NA Ltd. (Intertek) has conducted testing for Akustus Industries Inc., to evaluate the surface burning characteristics of Sereno Panels with FR Treatment. Testing was conducted in accordance with the standard methods of CAN/ULC S102.2-10, Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies.

This evaluation began November 23, 2017 and was completed November 23, 2017.

SECTION 3

SAMPLE SELECTION

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 4

SAMPLE ASSEMBLY AND DESCRIPTION

The samples were tested in "As Received Condition".

The sample product was identified by the client as 9mm thick Sereno Panels with FR Treatment. The sample materials consisted of 17-3/8 in. wide by 4 ft. long panels.

For each trial run, 24 ft. sample material was placed on the floor of the tunnel. A layer of 6mm reinforced cement board was placed on the upper ledges of the tunnel, the tunnel lid was lowered into place, and the samples were then tested in accordance with CAN/ULC S102.2-10.

SECTION 5

TESTING AND EVALUATION METHODS

TEST STANDARD

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 6 RESULTS AND OBSERVATIONS

(A) Flame Spread

The resultant flame spread ratings are as follows:
(Rating rounded to nearest 5)

9mm thick Sereno Panels with FR Treatment	Flame Spread	Flame Spread Rating
Run 1	12	10
Run 2	12	
Run 3	11	

(B) Smoke Developed

The areas beneath the smoke developed curve and the related classifications are as follows:
(Classification rounded to nearest 5)

9mm thick Sereno Panels with FR Treatment	Smoke Developed	Smoke Developed Classification
Run 1	242	235
Run 2	217	
Run 3	244	

(C) Observations

During the test runs, surface ignition occurred between 102 and 135 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.

SECTION 7
CONCLUSION

The samples of 9mm thick Sereno Panels with FR Treatment, submitted by Akustus Industries Inc., exhibited the following flame spread characteristics when tested in accordance with CAN/ULC S102.2-10, *Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous 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
9mm thick Sereno Panels with FR Treatment	10	235

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.

TEST REPORT FOR AKUSTUS INDUSTRIES INC.

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SECTION 8

APPENDIX A: TEST DATA (6 PAGES)

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

CAN/ULC S102.2-10 DATA SHEETS
Run 1

Standard: Canadian ULC S102.2

Page 1 of 2

Client: Akustus Industries
Date: 11 23 2017
Project Number: 103239523
Test Number: 1
Operator: Salvatore Balletta
Specimen ID: Fire Retardant Coated 9mm thick Serano Panels

TEST RESULTS

FLAMESPREAD INDEX: 10
SMOKE DEVELOPED INDEX: 240

SPECIMEN DATA . . .

Time to Ignition (sec): 135
Time to Max FS (sec): 429
Maximum FS (mm): 1534.7
Time to 527 C (sec): Never Reached
Time to End of Tunnel (sec): Never Reached
Max Temperature (C): 330
Time to Max Temperature (sec): 502
Total Fuel Burned (cubic feet): 46.01
FS*Time Area (M*min): 6.6
Smoke Area (%A*min): 432.6
Unrounded FSI: 12.1
Unrounded SDI: 241.7

CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 42.0
Red Oak Smoke Area (%A*min): 179.0

Tested By: SB

Reviewed By: [Signature]

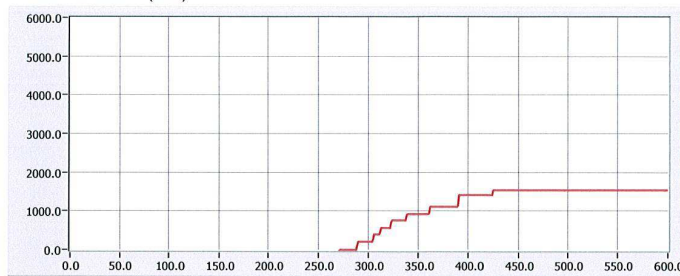
Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

CAN/ULC S102.2-10 DATA SHEETS Run 1

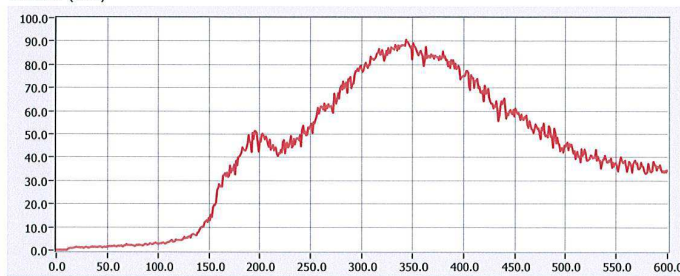
Page 2 of 2

Client: Akustus Industries Specimen ID: Fire Retardant Coated 9mm thick Serano
Test No.: 103239523 Standard: Canadian ULC S102.2

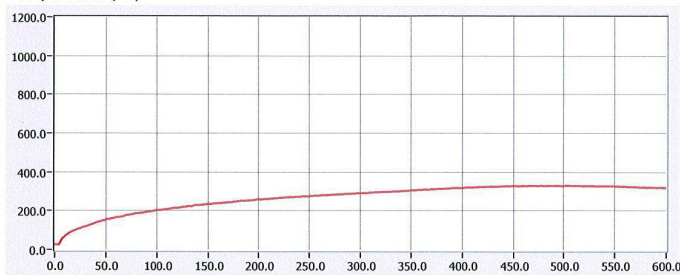
FLAME SPREAD (MM)



Smoke (%A)



Temperature (°C)



Time (sec)

600

Tested By: *PA.*

Reviewed By: *[Signature]*

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

CAN/ULC S102.2-10 DATA SHEETS
Run 2

Standard: Canadian ULC S102.2

Page 1 of 2

Client: Akustus Industries
Date: 11 23 2017
Project Number: 103239523
Test Number: 2
Operator: Salvatore Ballesta
Specimen ID: Fire Retardant coated 9mm thick Sereno Panels

TEST RESULTS

FLAMESPREAD INDEX: 10
SMOKE DEVELOPED INDEX: 215

SPECIMEN DATA . . .

Time to Ignition (sec): 102
Time to Max FS (sec): 446
Maximum FS (mm): 1480.1
Time to 527 C (sec): Never Reached
Time to End of Tunnel (sec): Never Reached
Max Temperature (C): 315
Time to Max Temperature (sec): 481
Total Fuel Burned (cubic feet): 46.02

FS*Time Area (M²min): 6.6
Smoke Area (%A*min): 388.9
Unrounded FSI: 12.1
Unrounded SDI: 217.3

CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 42.0
Red Oak Smoke Area (%A*min): 179.0

Tested By: 

Reviewed By: 

Benchmark and Non-standard Test Report: Report must be reproduced in its entirety

