

TEST REPORT

Intertek

REPORT NUMBER: 102336314COQ-001
ORIGINAL ISSUE DATE: November 25, 2015
REVISION DATE: December 1, 2015

EVALUATION CENTER
Intertek Testing Services NA Ltd.
1500 Brigantine Drive
Coquitlam, B.C. V3K 7C1

RENDERED TO

Dasso USA LLC
6060 Boat Rock Boulevard SW
Atlanta, GA 30336

PRODUCT EVALUATED: Dasso XTR Fused Bamboo Material
EVALUATION PROPERTY: Surface Burning Characteristics

Report of testing Dasso XTR Fused Bamboo Material for compliance with the applicable requirements of the following criteria: CAN/ULC S102-10, *Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies.*

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2 Introduction

Intertek Testing Services NA Ltd. (Intertek) has conducted testing for Dasso USA LLC., to evaluate the surface burning characteristics of Dasso XTR Fused Bamboo Material. Testing was conducted in accordance with the standard methods of CAN/ULC S102-10, *Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies*.

This evaluation began November 24, 2015 and was completed the same day.

3 Test Samples

3.1. SAMPLE SELECTION

Samples were submitted to Intertek directly from the client and were not independently selected for testing. The sample panels were received at the Evaluation Center on November 9, 2015.

3.2. SAMPLE AND ASSEMBLY 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 specimens consisted of nominal 1 in. thick by 6 in. wide by 6 ft. long panels, and were identified by the client as Dasso XTR Fused Bamboo Material measuring nominal 1in. by 6 in. by 6 ft.

For each trial run, Four nominal 6 in. wide by 6 ft. long pieces were screwed together to form 21 in. wide sample decks. Four decks were then butted together end to end to form the required 24 ft. sample length and placed on the upper ledge of the flame spread tunnel. 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 S102-10.

4 Testing and Evaluation Methods

4.1. 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.

5 Testing and Evaluation Results

5.1. RESULTS AND OBSERVATIONS

(A) Flame Spread

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

Dasso XTR Fused Bamboo Material	Flame Spread	Flame Spread Rating
Run 1	21	20
Run 2	19	
Run 3	18	

(B) Smoke Developed

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

Dasso XTR Fused Bamboo Material	Smoke Developed	Smoke Developed Classification
Run 1	24	25
Run 2	28	
Run 3	28	

(C) Observations

During the tests, the sample surface ignited at approximately 70 to 84 seconds; the flame began to progress along the sample until it reached the maximum flame spread.

6 Conclusion

The Dasso XTR Fused Bamboo Material, submitted by Dasso USA LLC, exhibited the following flame spread characteristics when tested in accordance with CAN/ULC S102-10, *Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies*.

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

Sample	Flame Spread Rating	Smoke Developed Classification
Dasso XTR Fused Bamboo Material	20	25

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.

INTERTEK TESTING SERVICES NA LTD.

Tested and
Reported by:


Greg Philp
Technician – Building Products

Reviewed by:


Riccardo DeSantis
Manager – Building Products

GP

APPENDIX A

DATA SHEETS

CAN/ULC S102-10 DATA SHEETS
Run 1

Standard: ULC S102

Page 1 of 2

Client: Dasso USA
Date: 11 24 2015
Project Number: 102336314
Test Number: 1
Operator: Greg Philip
Specimen ID: 3/4 in by 5 3/8 in. . Dasso Bamboo Decking

TEST RESULTS

FLAMESPREAD INDEX: 20

SMOKE DEVELOPED INDEX: 25

SPECIMEN DATA . . .

Time to Ignition (sec): 76
Time to Max FS (sec): 544
Maximum FS (mm): 1932.6
Time to 527 C (sec): Never Reached
Time to End of Tunnel (sec): Never Reached
Max Temperature (C): 353
Time to Max Temperature (sec): 599
Total Fuel Burned (cubic feet): 47.00

FS*Time Area (M*min): 11.3
Smoke Area (%A*min): 42.0
Unrounded FSI: 20.9
Unrounded SDI: 24.2

CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 39.0
Red Oak Smoke Area (%A*min): 173.4

Tested By: 

Reviewed By: 

CAN/ULC S102-10 DATA SHEETS Run 1

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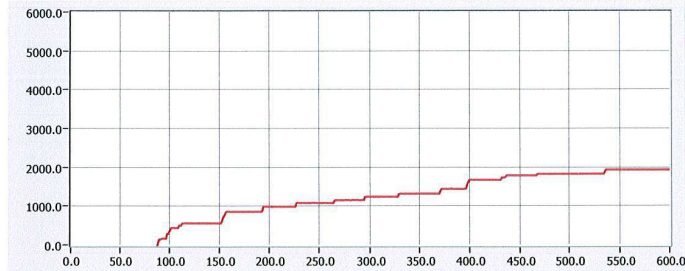
Client: Dasso USA

Specimen ID: 3/4 in by 5 3/8 in. . Dasso Bamboo

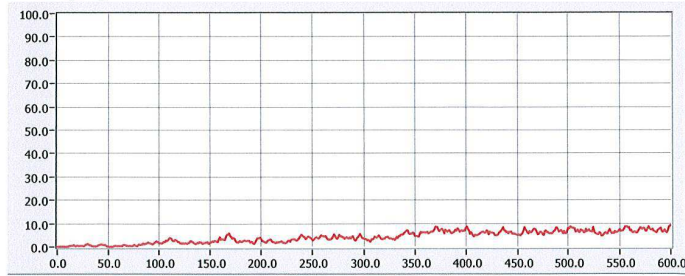
Test No.: 1

Standard: ULC S102

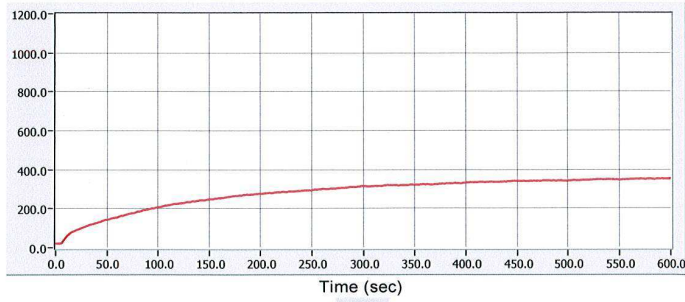
FLAME SPREAD (MM)



Smoke (%A)



Temperature (°C)



Time (sec)
600

Tested By: [Signature]

Reviewed By: [Signature]

CAN/ULC S102-10 DATA SHEETS
Run 2

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Client: Dasso USA

Specimen ID: 3/4 in. by 5 3/8 in. Dasso Bamboo

Test No.: 2

Standard: ULC S102

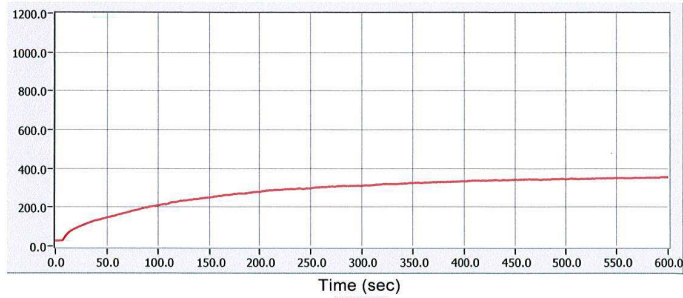
FLAME SPREAD (MM)



Smoke (%A)



Temperature (°C)



Time (sec)
600

Tested By: _____

Reviewed By: _____

CAN/ULC S102-10 DATA SHEETS
Run 3

Standard: ULC S102

Page 1 of 2

Client: Dasso USA
Date: 11 24 2015
Project Number: 102336314
Test Number: 3
Operator: Greg Philp
Specimen ID: 3/4 in. by 5 3/8 in. Dasso Bamboo Decking

TEST RESULTS

FLAMESPREAD INDEX: 20

SMOKE DEVELOPED INDEX: 30

SPECIMEN DATA . . .

Time to Ignition (sec): 74
Time to Max FS (sec): 519
Maximum FS (mm): 1654.5
Time to 527 C (sec): Never Reached
Time to End of Tunnel (sec): Never Reached
Max Temperature (C): 352
Time to Max Temperature (sec): 590
Total Fuel Burned (cubic feet): 47.00

FS*Time Area (M²*min): 9.7
Smoke Area (%A*min): 47.8
Unrounded FSI: 18.0
Unrounded SDI: 27.6

CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 39.0
Red Oak Smoke Area (%A*min): 173.4

Tested By: _____

Reviewed By: _____

REVISION SUMMARY

DATE	PAGE(S)	SUMMARY
November 25, 2015	All	Original Issue Date
December 1, 2015	Cover, 3,5 & 6	Corrected Product name to Dasso XTR Fused Bamboo Material