

# LAMINAGE AGRO INC.

## TEST REPORT

### SCOPE OF WORK

REPORT OF TESTING 10MM THICK PVC WALL AND CEILING PANELS FOR COMPLIANCE WITH THE APPLICABLE REQUIREMENTS OF THE FOLLOWING CEITERIA: CAN/ULC S102.2-18, STANDARD METHOD OF TESTING FOR SURFACE BURNING CHARACTERISTICS OF FLOORCOVERIG, AND MISCELLANEOUS MATERIALS AND ASSEMBLIES.

### REPORT NUMBER

10389346COQ-001 R0

### TEST DATE(S)

04/18/19 - 04/18/19

### ISSUE DATE

04/23/19

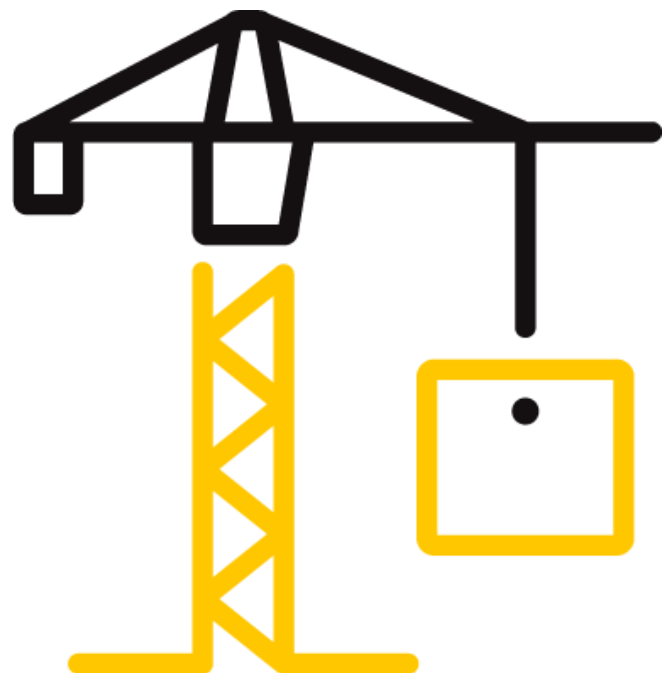
### PAGES

15

### DOCUMENT CONTROL NUMBER

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

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## TEST REPORT FOR LAMINAGE AGRO INC.

Report No.: 10389346COQ-001 R0

Date: 04/23/19

### REPORT ISSUED TO

Laminage Agro Inc.  
1195 Principale  
Granby, QC J2J 0M3 CAN

### SECTION 1

#### SCOPE

Intertek Building & Construction (B&C) was contracted by Laminage Agro Inc. to perform testing in accordance with S102.2-18 Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies., on their 10mm thick PVC wall and ceiling 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 of 10mm thick PVC wall and ceiling panels submitted by Laminage Agro Inc. were tested in accordance with S102.2-18, 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.

For INTERTEK B&C:

<b>COMPLETED BY:</b>	Sean Fewer
<b>TITLE:</b>	Technician – B&C
<b>SIGNATURE:</b>	
<b>DATE:</b>	04/23/19

<b>REVIEWED BY:</b>	Greg Philp
<b>TITLE:</b>	Senior Technician – B&C
<b>SIGNATURE:</b>	
<b>DATE:</b>	04/23/19

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### SECTION 3

#### TEST METHOD(S)

The specimens were evaluated in accordance with the following:

**CAN/ULC S102.2-18**, *Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous 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 sample material was received at the Evaluation Center on April 4, 2019.

### SECTION 5

#### EQUIPMENT

ASSET #	DESCRIPTION	MODEL	CAL DUE DATE
WH 2189	Photocell	Huygen 856	10/09/19
WH 2190	Smoke Opacity Meter	Huygen	10/09/19
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

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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 was identified by the client as Laminage Agro 10mm thick PVC wall and ceiling panels and was white in color.

For each trial run, 17 3/8 in. wide by 24 ft. of 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 S102.2-18.

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

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

Laminage Agro 10mm thick PVC wall and ceiling panels	Flame Spread	Flame Spread Rating
Run 1	13	10
Run 2	12	
Run 3	9	

**(B) Smoke Developed**

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

Laminage Agro 10mm thick PVC wall and ceiling panels	Smoke Developed	Smoke Developed Classification
Run 1	281	285
Run 2	295	
Run 3	284	

**(C) Observations**

During the test runs, surface ignition occurred between 41 and 56 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 Laminage Agro 10mm thick PVC wall and ceiling panels submitted by Laminage Agro Inc exhibited the following flame spread characteristics when tested in accordance with S102.2-18, 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.

<b>Sample Material</b>	<b>Flame Spread Rating</b>	<b>Smoke Developed Classification</b>
Laminage Agro 10mm thick PVC wall and ceiling panels	10	285

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.



Total Quality. Assured.

**TEST REPORT FOR LAMINAGE AGRO INC.**

Report No.: 10389346COQ-001 R0

Date: 04/23/19

1500 Brigantine Drive  
Coquitlam, BC V3K 7C1

Telephone: 604-520-3321  
[www.intertek.com/building](http://www.intertek.com/building)

**SECTION 11**

**TEST DATA (6 PAGES)**

## TEST REPORT FOR LAMINAGE AGRO INC.

Report No.: 10389346COQ-001 R0

Date: 04/23/19

## CAN/ULC S102.2-18 DATA SHEETS

### Run 1

Standard: Canadian ULC S102.2

Page 1 of 2

Client: Laminage Agro Inc.

Date: 04 18 2019

Project Number: 103898346

Test Number: 1

Operator: Sean Fewer

Specimen ID: Pvc panel

#### TEST RESULTS

**FLAMESPREAD INDEX: 15**

**SMOKE DEVELOPED INDEX: 280**

#### SPECIMEN DATA . . .

Time to Ignition (sec): 41

Time to Max FS (sec): 244

Maximum FS (mm): 1104.4

Time to 527 C (sec): Never Reached

Time to End of Tunnel (sec): Never Reached

Max Temperature (C): 267

Time to Max Temperature (sec): 597

Total Fuel Burned (cubic feet): 45.70

FS\*Time Area (M\*min): 6.9

Smoke Area (%A\*min): 442.9

Unrounded FSI: 12.7

Unrounded SDI: 281.2

#### 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 LAMINAGE AGRO INC.

Report No.: 10389346COQ-001 R0

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### CAN/ULC S102.2-18 DATA SHEETS

#### Run 1

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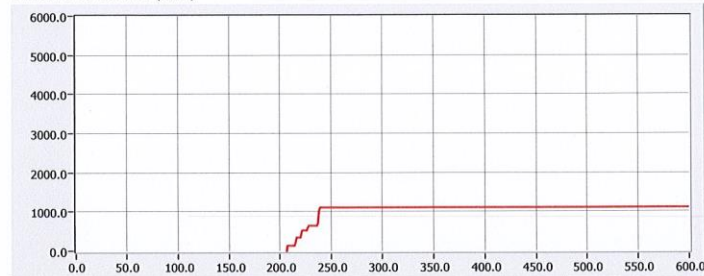
Client: Laminage Agro Inc.

Specimen ID: Pvc panel

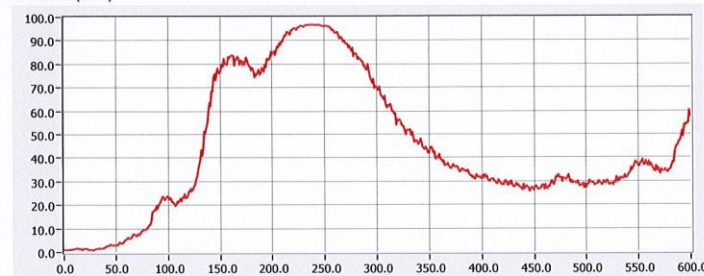
Test No.: 103898346

Standard: Canadian ULC S102.2

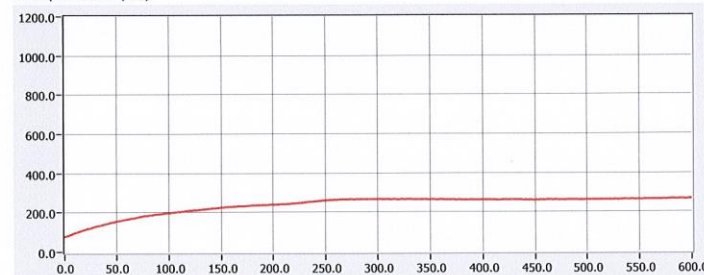
#### FLAME SPREAD (MM)



#### Smoke (%A)



#### Temperature (°C)



Time (sec)

600

Tested By: SF

Reviewed By: [Signature]

## TEST REPORT FOR LAMINAGE AGRO INC.

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## CAN/ULC S102.2-18 DATA SHEETS

### Run 2

Standard: Canadian ULC S102.2

Page 1 of 2

Client: Laminage Agro Inc.

Date: 04 18 2019

Project Number: 103898346

Test Number: 2

Operator: Sean Fewer

Specimen ID: PVC Panel

#### TEST RESULTS

**FLAMESPREAD INDEX: 10**

**SMOKE DEVELOPED INDEX: 295**

#### SPECIMEN DATA . . .

Time to Ignition (sec): 56

Time to Max FS (sec): 565

Maximum FS (mm): 1507.0

Time to 527 C (sec): Never Reached

Time to End of Tunnel (sec): Never Reached

Max Temperature (C): 274

Time to Max Temperature (sec): 600

Total Fuel Burned (cubic feet): 45.70

FS\*Time Area (M\*min): 6.7

Smoke Area (%A\*min): 464.5

Unrounded FSI: 12.4

Unrounded SDI: 294.9

#### CALIBRATION DATA . . .

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

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

Tested By: SP

Reviewed By: [Signature]

## TEST REPORT FOR LAMINAGE AGRO INC.

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### CAN/ULC S102-18 DATA SHEETS

#### Run 2

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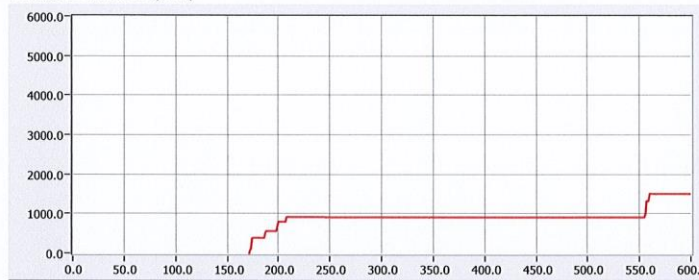
Client: Laminage Agro Inc.

Specimen ID: PVC Panel

Test No.: 103898346

Standard: Canadian ULC S102.2

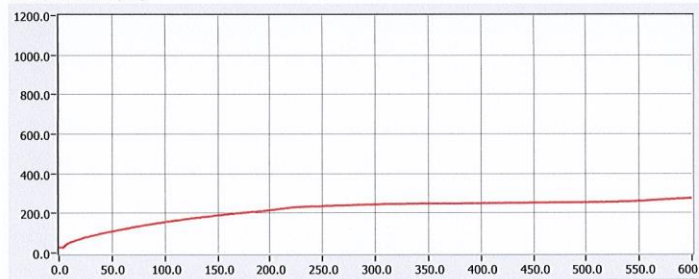
#### FLAME SPREAD (MM)



#### Smoke (%A)



#### Temperature (°C)



Time (sec)

600

Tested By: SJF

Reviewed By: [Signature]

## TEST REPORT FOR LAMINAGE AGRO INC.

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### CAN/ULC S102.2-18 DATA SHEETS

#### Run 3

Standard: Canadian ULC S102.2

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Client: Laminage Agro Inc.

Date: 04 18 2019

Project Number: 103898346

Test Number: 3

Operator: Sean Fewer

Specimen ID: PVC Panel

#### TEST RESULTS

**FLAMESPREAD INDEX: 10**

**SMOKE DEVELOPED INDEX: 285**

#### SPECIMEN DATA . . .

Time to Ignition (sec): 42

Time to Max FS (sec): 256

Maximum FS (mm): 767.0

Time to 527 C (sec): Never Reached

Time to End of Tunnel (sec): Never Reached

Max Temperature (C): 260

Time to Max Temperature (sec): 592

Total Fuel Burned (cubic feet): 45.70

FS\*Time Area (M\*min): 4.8

Smoke Area (%A\*min): 447.8

Unrounded FSI: 8.8

Unrounded SDI: 284.3

#### 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 LAMINAGE AGRO INC.

Report No.: 10389346COQ-001 R0

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### CAN/ULC S102.2-18 DATA SHEETS

#### Run 3

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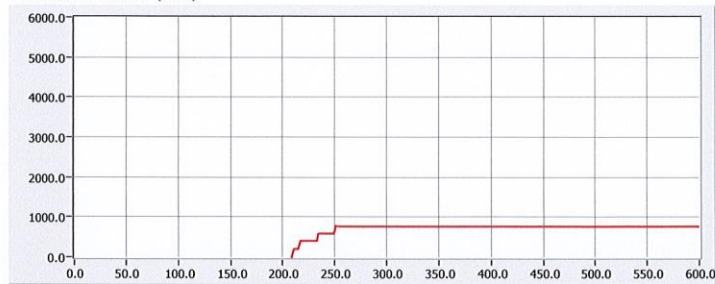
Client: Laminage Agro Inc.

Specimen ID: PVC Panel

Test No.: 103898346

Standard: Canadian ULC S102.2

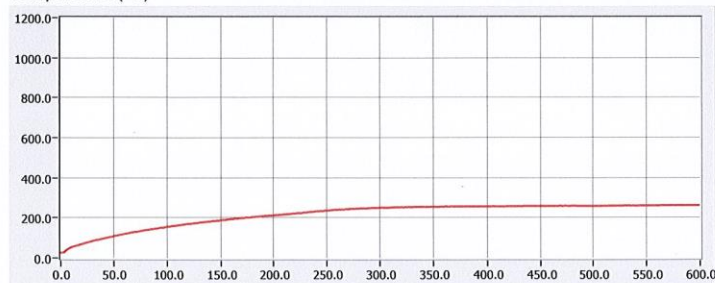
#### FLAME SPREAD (MM)



#### Smoke (%A)



#### Temperature (°C)



Time (sec)

600

Tested By: SF

Reviewed By: [Signature]

## TEST REPORT FOR LAMINAGE AGRO INC.

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### SECTION 12 PHOTOGRAPHS



**Photo No. 1**  
**Pre Test**



**Photo No. 2**  
**Post Test**



Total Quality. Assured.

**TEST REPORT FOR LAMINAGE AGRO INC.**

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1500 Brigantine Drive  
Coquitlam, BC V3K 7C1

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**SECTION 13**  
**REVISION LOG**

REVISION #	DATE	PAGES	REVISION
0	04/23/19	N/A	Original Report Issue