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 CRITERIA: CAN/ULC S102.2-18, STANDARD METHOD OF TESTING FOR SURFACE BURNING CHARACTERISTICS OF FLOORCOVERING, 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

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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:

<table>
<thead>
<tr>
<th>COMPLETED BY:</th>
<th>REVIEWED BY:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sean Fewer</td>
<td>Greg Philp</td>
</tr>
<tr>
<td>Technician – B&amp;C</td>
<td>Senior Technician – B&amp;C</td>
</tr>
</tbody>
</table>

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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

<table>
<thead>
<tr>
<th>ASSET #</th>
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<th>MODEL</th>
<th>CAL DUE DATE</th>
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<td>Huygen 856</td>
<td>10/09/19</td>
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<tr>
<td>WH 2190</td>
<td>Smoke Opacity Meter</td>
<td>Huygen</td>
<td>10/09/19</td>
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<td>WH 2494</td>
<td>Data Logger</td>
<td>Yokogawa DA100</td>
<td>07/18/19</td>
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SECTION 6
LIST OF OFFICIAL OBSERVERS

<table>
<thead>
<tr>
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<th>COMPANY</th>
</tr>
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<tbody>
<tr>
<td>Sean Fewer</td>
<td>Intertek B&amp;C</td>
</tr>
<tr>
<td>Greg Philp</td>
<td>Intertek B&amp;C</td>
</tr>
</tbody>
</table>
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 ± 3°C (73.4 ± 5°F) and 50 ± 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.
SECTION 9
TEST RESULTS

(A) Flame Spread

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

<table>
<thead>
<tr>
<th>Laminage Agro 10mm thick PVC wall and ceiling panels</th>
<th>Flame Spread</th>
<th>Flame Spread Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run 1</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Run 2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Run 3</td>
<td>9</td>
<td></td>
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(B) Smoke Developed

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

<table>
<thead>
<tr>
<th>Laminage Agro 10mm thick PVC wall and ceiling panels</th>
<th>Smoke Developed</th>
<th>Smoked Developed Classification</th>
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<tr>
<td>Run 1</td>
<td>281</td>
<td>285</td>
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<td>Run 2</td>
<td>295</td>
<td></td>
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<tr>
<td>Run 3</td>
<td>284</td>
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</tbody>
</table>

(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.
TEST REPORT FOR LAMINAGE AGRO INC.

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.

<table>
<thead>
<tr>
<th>Sample Material</th>
<th>Flame Spread Rating</th>
<th>Smoke Developed Classification</th>
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<tr>
<td>Laminage Agro 10mm thick PVC wall and ceiling panels</td>
<td>10</td>
<td>285</td>
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</table>

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.
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

Client: Laminage Agro Inc.
Date: 04/18/2019
Project Number: 10389346
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): 46.70
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: [Signature]
Reviewed By: [Signature]
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CAN/ULC S102.2-18 DATA SHEETS
Run 1

FLAME SPREAD (MM)

Smoke (%A)

Temperature (°C)

Tested By: SF
Reviewed By: 

1500 Brigantine Drive
Coquitlam, BC V3K 7C1
Telephone: 604-520-3321
www.intertek.com/building
TEST REPORT FOR LAMINAGE AGRO INC.
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CAN/ULC S102.2-18 DATA SHEETS
Run 2

| Standard: Canadian ULC S102.2 |
| Client: Laminage Agro Inc. |
| Date: 04/18/2019 |
| Project Number: 10389346 |
| 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): 58 |
| 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): 40.0 |
| Red Oak Smoke Area (%A*min): 157.8 |

Tested By: [Signature]
Reviewed By: [Signature]
TEST REPORT FOR LAMINAGE AGRO INC.
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CAN/ULC S102-18 DATA SHEETS
Run 2

Client: Laminage Agro Inc.
Specimen ID: PVC Panel
Test No.: 10389346
Standard: Canadian ULC S102.2

FLAME SPREAD (MM)

Smoke (%A)

Temperature (°C)

Time (sec)

Tested By: [Signature]
Reviewed By: [Signature]
CAN/ULC S102.2-18 DATA SHEETS
Run 3

Standard: Canadian ULC S102.2

Client: Laminage Agro Inc.
Date: 04 18 2019
Project Number: 10389346
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): 562
Total Fuel Burned (cubic feet): 47.70

FS*Time Area (M*min): 4.8
Smoke Area (%A*min): 447.8
Unrounded FSI: 8.8
Unrounded SDI: 264.3

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: 

Version: AUGUST 27, 2018
CAN/ULC S102.2-18 DATA SHEETS
Run 3

Test No.: 10398346
Specimen ID: PVC Panel
Standard: Canadian ULC S102.2

FLAME SPREAD (MM)

Smoke (%A)

Temperature (°C)

Tested by: SF
Reviewed by: 

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SECTION 12
PHOTOGRAPHS

Photo No. 1
Pre Test

Photo No. 2
Post Test
**SECTION 13**

**REVISION LOG**

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