

# MSW PLASTICS INC TEST REPORT

# **SCOPE OF WORK**

REPORT OF TESTING 12.5 MM THICK TRUSSCORE PVC WALL 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 ASSEMBILIES.

**REPORT NUMBER** 104133526COQ-001 R0 **TEST DATE(S)** 11/18/19 - 11/18/19

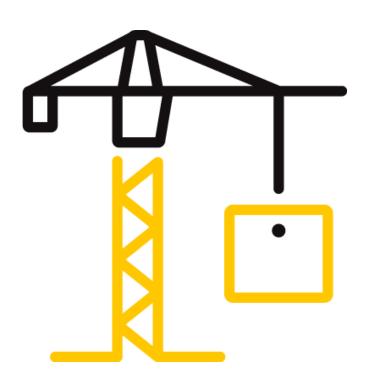
**ISSUE DATE** 11/21/19

11/21/13

PAGES

15

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**TEST REPORT FOR MSW PLASTICS INC** Report No.: 104133526COQ-001 R0 Date: 11/21/19

**REPORT ISSUED TO** 

MSW PLASTICS INC PO Box 29, 140 Minto Road Palmerston, ON NOG 2P0

## **SECTION 1**

#### SCOPE

Intertek Building & Construction (B&C) was contracted by MSW Plastics 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 12.5 mm. thick Trusscore PVC wall 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.

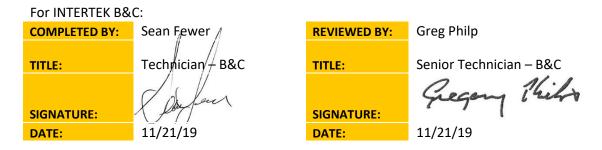
This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

#### SECTION 2

#### SUMMARY OF TEST RESULTS

The samples of 12.5 mm. thick Trusscore PVC wall panels submitted by MSW Plastics 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 10 of this report.



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# **TEST REPORT FOR MSW PLASTICS INC** Report No.: 104133526COQ-001 R0 Date: 11/21/19

## 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 November 1, 2019.

## SECTION 5

## EQUIPMENT

| ASSET # | DESCRIPTION         | MODEL             | CAL DUE DATE |
|---------|---------------------|-------------------|--------------|
| WH 2189 | Photocell           | Huygen 856        | 5/14/20      |
| WH 2190 | Smoke Opacity Meter | Huygen            | 05/14/20     |
| WH 2494 | Data Logger         | Yokogawa<br>DA100 | 07/18/20     |

# **SECTION 6**

#### LIST OF OFFICIAL OBSERVERS

| NAME       | COMPANY      |  |
|------------|--------------|--|
| Sean Fewer | Intertek B&C |  |
| Greg Philp | Intertek B&C |  |



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# **TEST REPORT FOR MSW PLASTICS INC**

Report No.: 104133526COQ-001 R0 Date: 11/21/19

# 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  $23 \pm 3^{\circ}$ C (73.4 ± 5°F) and 50 ± 5% relative humidity.

The sample material was identified by the client as 12.5 mm. thick Trusscore PVC wall panels

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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# TEST REPORT FOR MSW PLASTICS INC

Report No.: 104133526COQ-001 R0 Date: 11/21/19

# **SECTION 9**

#### **TEST RESULTS**

# (A) Flame Spread

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

| 12.5 mm. thick Trusscore PVC Wall<br>Panels | Flame Spread | Flame Spread<br>Rating |
|---|--------------|------------------------|
| Run 1                                       | 9            |                        |
| Run 2                                       | 9            | 10                     |
| 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)

| 0.76 mm. thick Ribcore PVC Wall<br>Panels | Smoke Developed | Smoked Developed<br>Classification |
|---|-----------------|------------------------------------|
| Run 1                                     | 342             |                                    |
| Run 2                                     | 442             | 380                                |
| Run 3                                     | 349             |                                    |

# (C) Observations

During the test runs, surface ignition occurred between 63 and 69 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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**TEST REPORT FOR MSW PLASTICS INC** Report No.: 104133526COQ-001 R0 Date: 11/21/19

#### SECTION 10

#### CONCLUSION

The samples of 12.5 mm. thick Trusscore PVC wall panels submitted by MSW Plastics 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.

| Sample Material                             | Flame Spread<br>Rating | Smoke Developed<br>Classification |
|---|------------------------|-----------------------------------|
| 12.5 mm. thick Trusscore PVC Wall<br>Panels | 10                     | 380                               |

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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# TEST REPORT FOR MSW PLASTICS INC

**TEST DATA (6 PAGES)** 

Report No.: 104133526COQ-001 R0 Date: 11/21/19

**SECTION 11** 



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**TEST REPORT FOR MSW PLASTICS INC** 

Report No.: 104133526COQ-001 R0 Date: 11/21/19

# CAN/ULC S102.2-18 DATA SHEETS Run 1

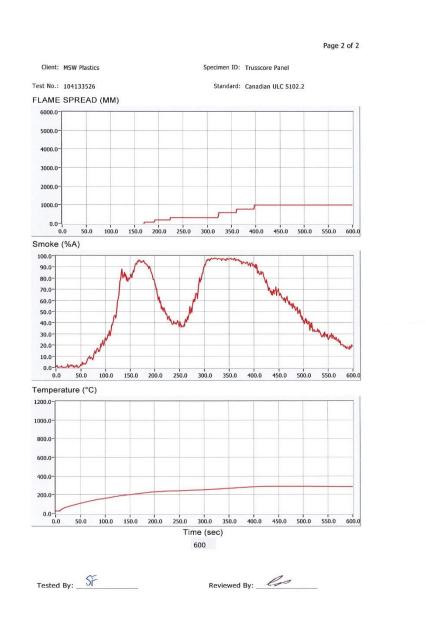
| Standard:       | Canadian U                    | LC S102.2 |              | Page 1 o | f 2 |
|-----------------|-------------------------------|-----------|--------------|----------|-----|
| Clie            | nt: MSW Plastics              |           |              |          |     |
|                 | e: 11 18 2019                 |           |              |          |     |
|                 |                               |           |              |          |     |
| Project Numbe   |                               |           |              |          |     |
| Test Numbe      |                               |           |              |          |     |
| Operato         | r: Sean Fewer                 |           |              |          |     |
| Specimen I      | D: Trusscore Panel            |           |              |          |     |
|                 |                               |           |              |          |     |
|                 |                               |           |              |          |     |
| TEST RESULTS    |                               |           |              |          |     |
|                 | FLAMESPREAD INDEX:            | 10        |              |          |     |
| SM              | IOKE DEVELOPED INDEX:         |           |              |          |     |
|                 |                               | - 10      |              |          |     |
| SPECIMEN DATA . |                               |           |              |          |     |
|                 | Time to Ignition (sec):       | 69        |              |          |     |
|                 | Time to Max FS (sec):         |           |              |          |     |
|                 | Maximum FS (mm):              |           |              |          |     |
|                 | Time to 527 C (sec):          |           |              |          |     |
|                 | Fime to End of Tunnel (sec):  |           |              |          |     |
|                 | Max Temperature (C):          | 289       |              |          |     |
| Time            | to Max Temperature (sec):     |           | *            |          |     |
| То              | tal Fuel Burned (cubic feet): | 45.70     |              |          |     |
|                 | FS*Time Area (M*min):         | 4.8       |              |          |     |
|                 | Smoke Area (%A*min):          |           |              |          |     |
|                 | Unrounded FSI:                |           |              |          |     |
|                 | Unrounded SDI:                | 342.4     |              |          |     |
| CALIBRATION DAT | Ά                             |           |              |          |     |
| -               |                               |           |              |          |     |
|                 | on of Last Red Oak (Sec):     |           |              |          |     |
| Red Oa          | ak Smoke Area (%A*min):       | 157.5     |              |          |     |
| 16              |                               |           |              | _        |     |
| Tested By:      |                               |           | Reviewed By: | -Chi-    |     |
|                 |                               |           |              |          |     |
|                 |                               |           |              |          |     |
|                 |                               |           |              |          |     |
|                 |                               |           |              |          |     |



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**TEST REPORT FOR MSW PLASTICS INC** Report No.: 104133526COQ-001 R0 Date: 11/21/19

# CAN/ULC S102.2-18 DATA SHEETS Run 1





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Page 1 of 2

**TEST REPORT FOR MSW PLASTICS INC** 

Report No.: 104133526COQ-001 R0 Date: 11/21/19

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

Standard:

Canadian ULC S102.2

Client: MSW Plastics Date: 11 18 2019 Project Number: 104133526 Test Number: <sup>2</sup> Operator: Sean Fewer

Specimen ID: Trusscore panel

TEST RESULTS

FLAMESPREAD INDEX: 10
SMOKE DEVELOPED INDEX: 440

SPECIMEN DATA . . .

Time to Ignition (sec): 63 Time to Max FS (sec): 493 Maximum FS (mm): 1170.7 Time to 527 C (sec): Never Reached Time to End of Tunnel (sec): Never Reached Max Temperature (C): 288 Time to Max Temperature (sec): 556 Total Fuel Burned (cubic feet): 45.70

> FS\*Time Area (M\*min): 4.9 Smoke Area (%A\*min): 696.8 Unrounded FSI: 9.1 Unrounded SDI: 442.4

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:



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**TEST REPORT FOR MSW PLASTICS INC** Report No.: 104133526COQ-001 R0

Date: 11/21/19

# CAN/ULC S102-18 DATA SHEETS Run 2





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Page 1 of 2

**TEST REPORT FOR MSW PLASTICS INC** 

Report No.: 104133526COQ-001 R0 Date: 11/21/19

# CAN/ULC S102.2-18 DATA SHEETS Run 3

Standard:

Canadian ULC S102.2

Client: MSW Plastics Date: 11 18 2019 Project Number: 104133526 Test Number: 3 Operator: Sean Fewer

Specimen ID: Trusscore Panels

TEST RESULTS

FLAMESPREAD INDEX: 10 SMOKE DEVELOPED INDEX: 350

SPECIMEN DATA . . .

Time to Ignition (sec): 65 Time to Max FS (sec): 360 Maximum FS (mm): 973.0 Time to 527 C (sec): Never Reached Time to End of Tunnel (sec): Never Reached Max Temperature (C): 273 Time to Max Temperature (sec): 436 Total Fuel Burned (cubic feet): 45.70

> FS\*Time Area (M\*min): 4.9 Smoke Area (%A\*min): 549.4 Unrounded FSI: 9.0 Unrounded SDI: 348.8

CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 48.0 Red Oak Smoke Area (%A\*min): 157.5

Tested By: \_\_\_\_\_\_SF

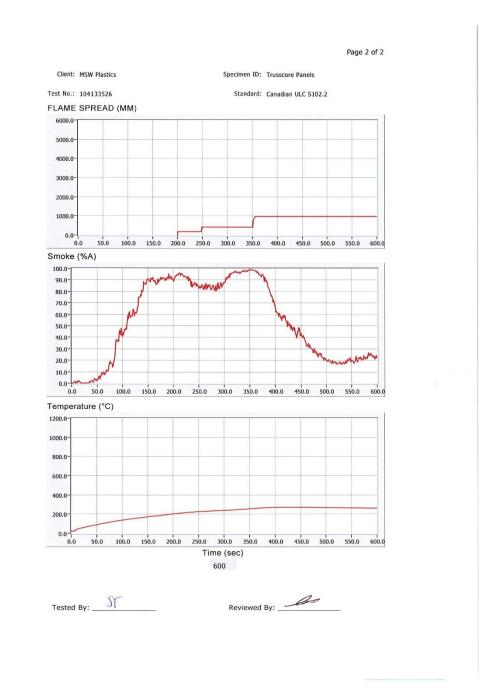
Reviewed By:



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**TEST REPORT FOR MSW PLASTICS INC** Report No.: 104133526COQ-001 R0 Date: 11/21/19

# CAN/ULC S102.2-18 DATA SHEETS Run 3





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# **TEST REPORT FOR MSW PLASTICS INC**

Report No.: 104133526COQ-001 R0 Date: 11/21/19

# **SECTION 12**

**PHOTOGRAPHS** 



Photo No. 1 Pre Test



Photo No. 2 Post Test



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# TEST REPORT FOR MSW PLASTICS INC

Report No.: 104133526COQ-001 R0 Date: 11/21/19

# **SECTION 13**

**REVISION LOG** 

| <b>REVISION #</b> | DATE     | PAGES | REVISION              |
|-------------------|----------|-------|-----------------------|
| 0                 | 11/21/19 | N/A   | Original Report Issue |
|                   |          |       |                       |