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MSW PLASTICS INC.

TEST REPORT

REPORT ISSUED TO
MSW Plastics Inc.
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SCOPE OF WORK
Report of testing Truscore Multiwall PVC Wall Panels (Fire Ret EXP) for compliance with the applicable requirements of the following criteria: ASTM E84-18 Standard Test Method for Surface Burning Characteristics of Materials.

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TEST REPORT FOR MSW PLASTICS INC.

Report No.: 103760525
Date: December 19, 2018

CONCLUSION

The samples of Truscore Multiwall PVC Wall Panels (Fire Ret EXP) submitted by MSW Plastics Inc, were tested in accordance with ASTM E84-18 Standard Test Method for Surface Burning Characteristics of Materials.

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

Sean Fewer
TECHNICIAN
BUILDING PRODUCTS

Greg Philp
Reviewer
BUILDING PRODUCTS CANADA

SECTION 1
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SECTION 2
OBJECTIVE

Intertek Testing Services NA Ltd. (Intertek) has conducted testing for MSW Plastics Inc. to evaluate the surface burning characteristics of ½ in. thick Truscore Multiwall PVC Wall Panels (Fire Ret EXP). Testing was conducted in accordance with the standard methods of ASTM E84-18 Standard Test Method for Surface Burning Characteristics of Materials.

This evaluation began December 19, 2018 and was completed December 19, 2018.

SECTION 3
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 December 11, 2018.

SECTION 4
SAMPLE ASSEMBLY AND 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 consisted of ½ in. thick by 24 in. wide by 17 in. long PVC panels, and was identified as “Truscore Multiwall PVC Wall Panels (Fire Ret EXP)”.

For this trial run, 24 in. wide by 24 ft. length of sample material was placed on the upper ledge of the flame spread tunnel. The sample material was supported by ¼ in. steel rods spaced every 24 in. and 20 ga. 2 in x 2 in galvanized steel netting spanning 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 ASTM E84-18.

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 Index:

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 Indexes are as follows:
(Indexes rounded to nearest 5)

Sample Material	Flame Spread	Flame Spread Index
Truscore Multiwall PVC Wall Panels (Fire Ret EXP)	16	15

(B) Smoke Developed

The areas beneath the smoke developed curve and the related indexes are as follows:
(For smoke developed indexes 200 or more, index is rounded to the nearest 50. For smoke developed indexes less than 200, index is rounded to nearest 5)

Sample Material	Smoke Developed	Smoked Developed Index
Truscore Multiwall PVC Wall Panels (Fire Ret EXP)	425	450

(C) Observations

During the tests, the sample surface ignited at approximately 31 seconds; the flame began to progress along the sample until it reached the maximum flame spread.

SECTION 7
CONCLUSION

The samples of Truscore Multiwall PVC Wall Panels (Fire Ret EXP), submitted by MSW Plastics Inc., exhibited the following flame spread characteristics when tested in accordance with ASTM E84-18 Standard Test Method for Surface Burning Characteristics of Materials.

Sample Material	Flame Spread Index	Smoke Developed Index
Truscore Multiwall PVC Wall Panels (Fire Ret EXP)	15	450

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 8

APPENDIX A: TEST DATA (2 PAGES)

ASTM E84-18 DATA SHEETS

ASTM E84

Client: MSW Plastics Inc.
Date: 12 19 2018
Project Number: 103760525
Test Number: 1
Operator: Sean Fewer

Specimen ID: Pvc wall panel- Fire Ret. EXP

TEST RESULTS

FLAMESPREAD INDEX: 15

SMOKE DEVELOPED INDEX: 450

SPECIMEN DATA . . .

Time to Ignition (sec): 31
Time to Max FS (sec): 241
Maximum FS (feet): 3.7
Time to 980 F (sec): Never Reached
Time to End of Tunnel (sec): Never Reached
Max Temperature (F): 437
Time to Max Temperature (sec): 592
Total Fuel Burned (cubic feet): 45.50

FS*Time Area (ft*min): 30.6
Smoke Area (%A*min): 318.7
Unrounded FSI: 15.8
Unrounded SDI: 425.4

CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 44.0
Red Oak Smoke Area (%A*min): 74.9

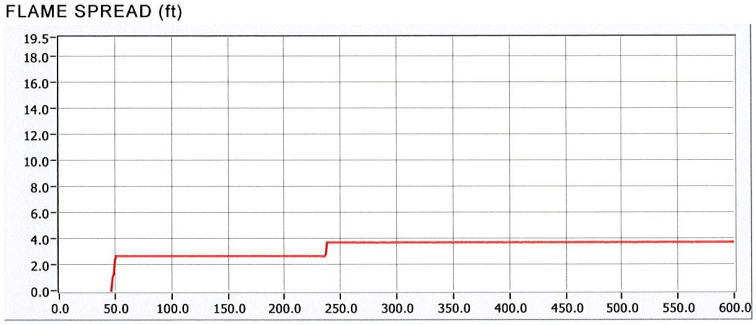
Tested by: SF

Reviewed By

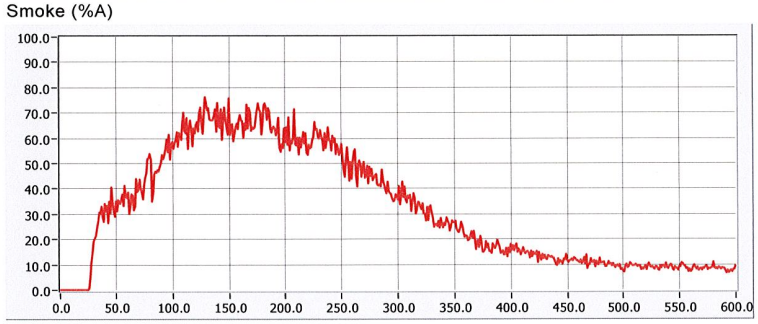
ASTM E84-18 DATA SHEETS

Project No: 103760525 Page 2 of 2

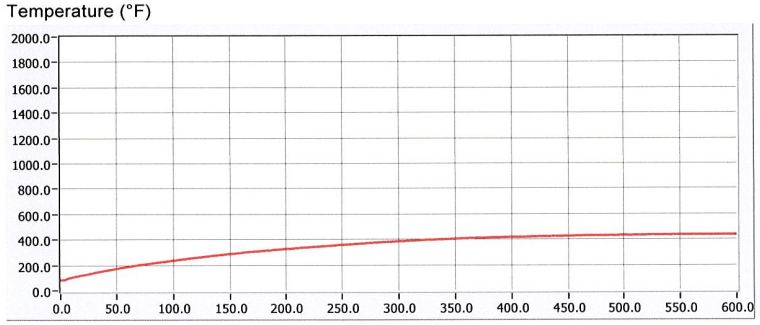
FLAME SPREAD (ft)



Smoke (%A)



Temperature (°F)



Time (sec)

600

Tested by : S F