



File Number: R39138

Project Number: 4787951612

2018-02-01

REPORT

on

Building Units

Under the

CLASSIFICATION PROGRAM

Green Products Industries

P.O Box 10266, Factory Building No 1923 Road 5146, Block 951
Askar
BH

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DESCRIPTION

PRODUCT COVERED:

The Product covered by this Report is a Building Unit.

The product is Classified by UL LLC (UL) as to Surface Burning Characteristics only.

USE

The product is intended for use as a building material as permitted by authorities having jurisdiction.

TEST RECORD NO. 1

GENERAL:

Test results relate only to the items tested.

EXAMINATION OF MATERIALS

The materials used in this investigation were produced under the observation of a representative of UL, in a ready-to-use form. The composition of the finished material is of proprietary nature. Data on the composition is on file at UL for use in the Follow-Up Service Program.

Various physical and chemical tests were conducted on the components and finished products. The results developed from these tests were employed in establishing specifications for use in the factory Follow-Up Service Program.

SURFACE BURNING CHARACTERISTICS:

SAMPLES

Each test sample consisted of three 8 by 2 ft wide boards butted end-to-end to form the required 24 ft. long surface.

Due to the rigidity of the test samples, supplementary means of support was not required.

For each test a piece of 1 ft long by 22 in. wide by 1/16 in. thick uncoated steel plate was placed at the fire end of the tunnel furnace "upstream" from the gas burners to complete the 25 ft chamber length.

The test samples were allowed to condition at a temperature of 73 ±4°F and a relative humidity of 50±5 percent prior to testing.

METHOD

The tests were conducted in accordance with Standard ANSI/UL723, Tenth Edition, dated September 10, 2008 with revisions through August 12, 2013, "Test for Surface Burning Characteristics of Building Materials", (ASTM E84).

RESULTS

Data on flame spread and smoke developed appears in the following tabulations. Graphs of flame spread versus time and smoke developed versus time are also provided as part of the Test Record.

Flame Spread Index

The maximum distance the flame spreads along the length of the sample from the end of the igniting flame is determined by observation.

The Flame Spread Index (FSI) of the material is determined by rounding the Calculated Flame Spread (CFS) as described in UL 723. The CFS is derived by calculating the area under the flame spread distance (ft) versus time (min) curve, ignoring any flame front recession, and using one of the calculation methods as described below.

1. If the total area (A_T) is less than or equal to 97.5 min-ft, the CFS shall be 0.515 times the total area ($FSI=0.515 A_T$).

2. If the total area (A_T) is greater than 97.5 min-ft, the CFS is to be 4900 divided by 195 minus the total area ($FSI=4900/(195-A_T)$).

Table 1: Flame Spread Summary

Test No.	Sample Description	Maximum Flame Spread (ft)	Time of Maximum Flame Spread (min:s)	Calculated Flame Spread (CFS)
1	Smart Wall Panels	0	0:00	0
2	Smart Wall Panels	0.0	8:06	0.00

Flame Spread Index	0
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Smoke Developed Index

The smoke Developed Index is determined by rounding the Calculated Smoke Developed (CSD) as described in UL 723. The CSD is determined by the output of a photoelectric circuit operating across the furnace flue pipe. A curve is developed by plotting values of light absorption (decrease in cell output) against time. The CSD is derived by expressing the net area under the curve for this material as a percentage of the net area under the curve for untreated red oak.

The CSD is expressed as:

$$\text{CSD} = (A_M / A_{ro}) \times 100$$

Where:

CSD=Calculated Smoke Developed

A_M = The area under the curve for the test material

A_{ro} = The area under the curve for untreated red oak

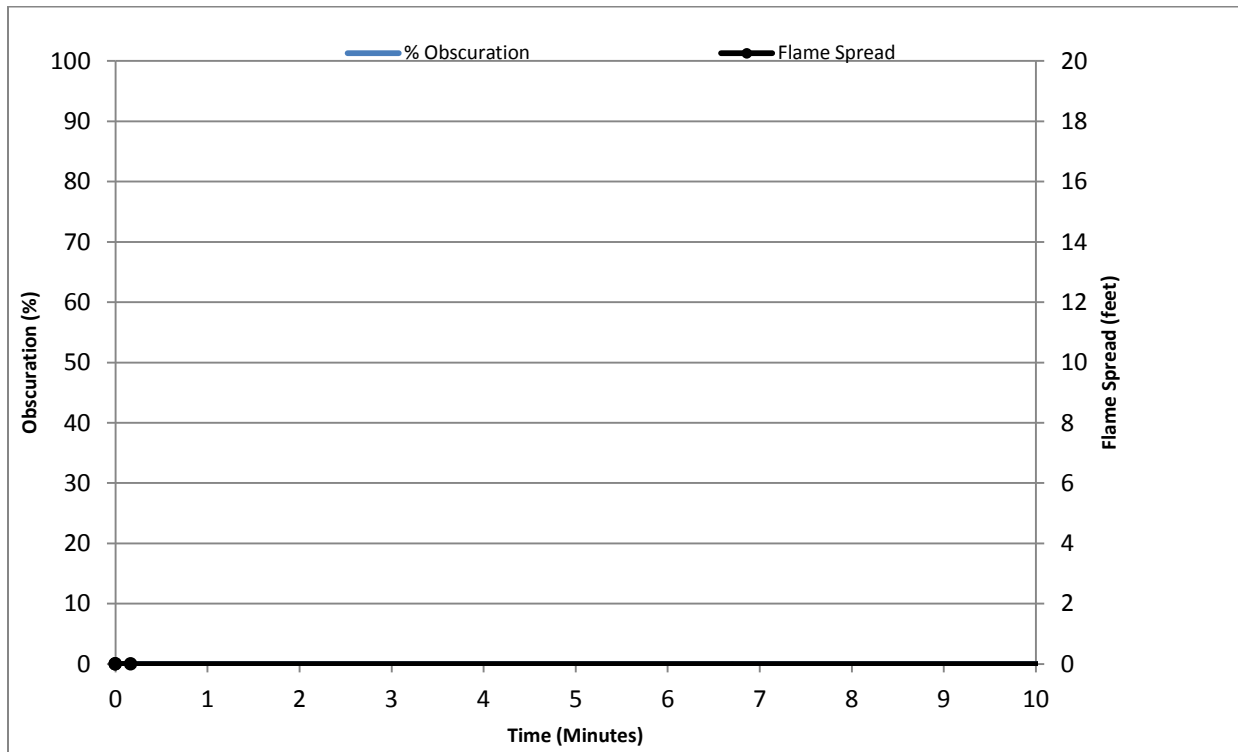
Table 2: Smoke Developed Summary

Test No.	Sample Description	CSD Calculated Smoke Developed
1	Smart Wall Panels	0.0
2	Smart Wall Panels	0.0

Smoke Developed Index	0
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Flame Spread / Smoke Results

Green Products Industries Smart Wall Panels

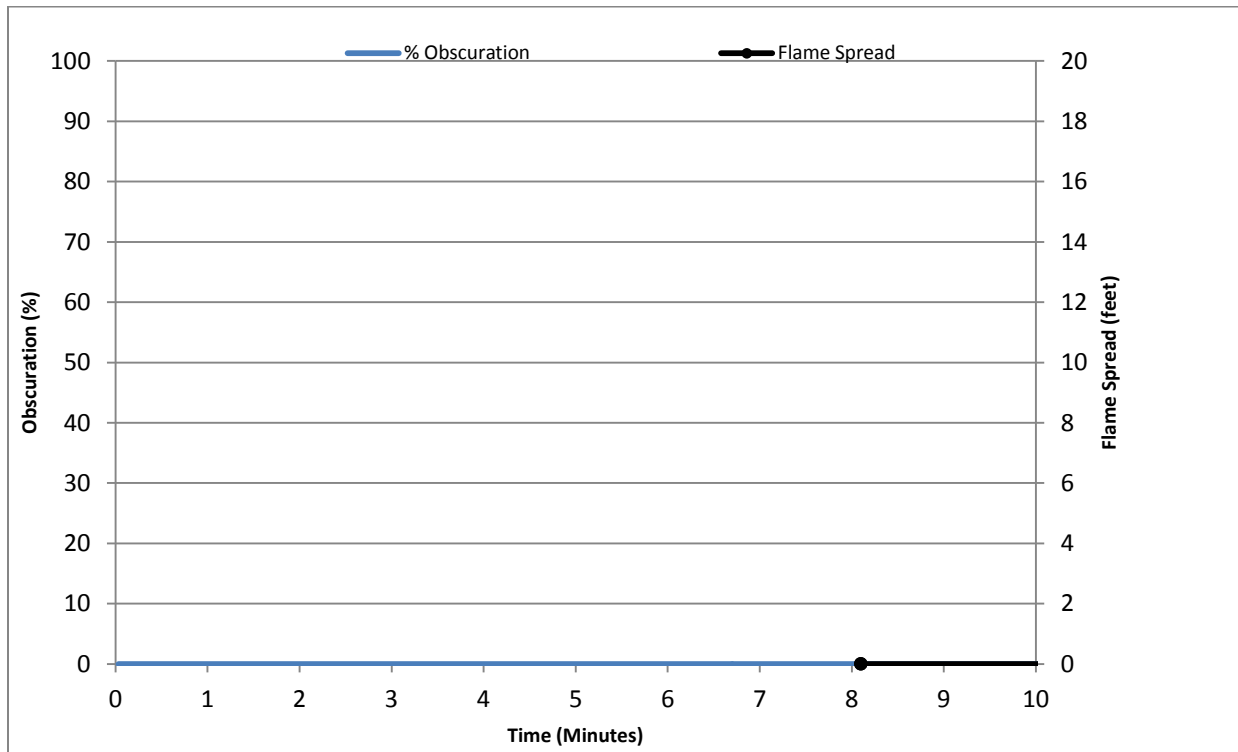


Test Num.: 1
R39138 / 4787951612
10261712

Flame Spread Index: 0
Smoke Developed Index: 0
Max. Flame Spread (ft.): 0.0

Flame Spread / Smoke Results

Green Products Industries Smart Wall Panels



Test Num.: 2
R39138 / 4787951612
10261714

Flame Spread Index: 0
Smoke Developed Index: 0
Max. Flame Spread (ft.): 0.0

Test Record Summary:

The results of this investigation, including construction review and testing, indicate that the products evaluated comply with the applicable requirements in the Standard for Surface Burning Characteristics for Building Materials, UL723, Tenth Edition (dated September 10, 2008 with revisions through August 12, 2013) and, therefore, such products are judged eligible to bear UL's Mark as described below and on the Conclusion Page of this Report.

Any information and documentation provided to you involving UL Mark services are provided on behalf of UL or any authorized licensee of UL.

Classification Marking:

The surface Burning Characteristics as shown below in the Classification Marking represent the judgment of UL based upon the results of the examination and tests presented in this Report.



Building Units
Issue No.
SURFACE BURNING CHARACTERISTICS

Flame Spread 0
Smoke Developed 0

Test Record by:

A handwritten signature in black ink, appearing to read "John Wiesner", written over a light gray rectangular background.

John Wiesner
Associate Project Engineer
Fire Protection Division

Reviewed by:

A handwritten signature in black ink, appearing to read "James F. Smith", written over a light gray rectangular background.

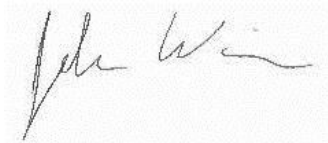
James F. Smith
Staff Engineering Associate
Fire Protection Division

Conclusion

Samples of the product covered by this Report have been found to comply with the requirements covering the category and the products are found to comply with UL's applicable requirements. The description and test result in this Report are only applicable to the samples investigated by UL and does not signify UL certification or that the product described is covered under UL's Follow-Up Service Program. When covered under UL's Follow-Up Service Program, the manufacturer is authorized to use the UL Classification Mark on such products which comply with UL's Follow-Up Service Procedure and any other application requirements of UL. The Classification Mark of UL on the product, or the UL symbol on the product and the Classification Mark on the smallest unit container in which the product is packaged, is the only method to identify products investigated by UL to published requirements and manufactured under UL's Classification and Follow-Up Service.

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Report by:



John Wiesner
Associate Project Engineer
Fire Protection Division

Reviewed by:



James F. Smith
Staff Engineering Associate
Fire Protection Division