



July 28, 2017

Mr. Jonathan Petefish
Abilities First
1370 E. Primrose
Suite A
Springfield, MO 65804

Our Reference: SV30895/4787938863

Subject: Report Of Surface Burning Characteristics Tests On Samples As
Submitted By Abilities First

Dear Mr. Petefish:

This is a Report summarizing the results of a test conducted under the Commercial Inspection and Testing Services (CITS) program of UL LLC (UL) identified as Assignment No. 4787938863.

GENERAL:

The results relate only to items tested.

METHOD:

Each test was 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).

The test determines the Surface Burning Characteristics of the material, specifically the flame spread and smoke developed indices when exposed to fire.

The maximum distance the flame travels along the length of the sample from the end of the igniting flame is determined by observation. The Flame Spread Index of the material is derived by plotting the progression of the flame front on a time-distance basis, ignoring any flame front recession, and using the equations described below:

A. $CFS = 0.515 A_T$ when A_T is less than or equal to 97.5 minute-foot.

B. $CFS = 4900/(195-A_T)$ when A_T is greater than 97.5 minute-foot.

Where A_T = total area under the time distance curve expressed in minute-foot.

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

The CSD is expressed as:

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

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.

SAMPLES:

The samples utilized in this investigation were neither prepared nor selected by a Laboratories' representative such that no verification of composition can be provided.

Sample Description

Test No.	System
1	Wave Pattern Wall Covering Tile.

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

RESULTS:

The results are tabulated below are considered applicable only to the specific samples tested.

Data sheets and graphical plots of flame travel versus time and smoke developed versus time are also enclosed.

Table 1: Test Summary

Test No.	Test Code	Sample Description	CFS Calculated Flame Spread	FSI Flame Spread Index	CSD Calculated Smoke Developed	SDI Smoke Developed Index
1	07251715	Wave Pattern Wall Covering Tile.	0	0	0.0	0

The Classification Marking of UL on the product is the only method provided by UL to identify products which have been produced under its Classification and Follow-Up Service. No use of a Classification Marking has been authorized as a result of this investigation.

Since the anticipated work has been completed, we have instructed our Accounting Department to terminate the investigation and invoice you for the charges incurred to date.

Should you have any questions, please contact the undersigned.

Very truly yours



James Smith
Staff Engineering Associate
Building Materials & Systems

Project: 4787938863
Tested by: ABRAN GARCIA

File: SV30895
Engineer: JAMES SMITH

TestCode: 07251715
Date: 2017-07-25

TEST METHOD: The test was conducted in accordance with UL 723, Tenth Edition.

Client Name: Abilities First	Test No.: 1	Hot Test: No
Test Duration: 10 minutes	Test Type: CITS	Burn-Out Required: No
Mounting: Self		

Test Sample: Wave Pattern Wall Covering Tile.

FLAME SPREAD RESULTS

Flame Spread Data

Distance (Feet)	Time (Sec)
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Calculated Flame Spread (CFS):	0.00
Flame Spread Index (FSI):	0
Time to Ignition (sec):	None
Maximum Flame Spread (ft):	0.0
Area Under the Flame Spread Curve (ft.-min.):	0.0

SMOKE RESULTS

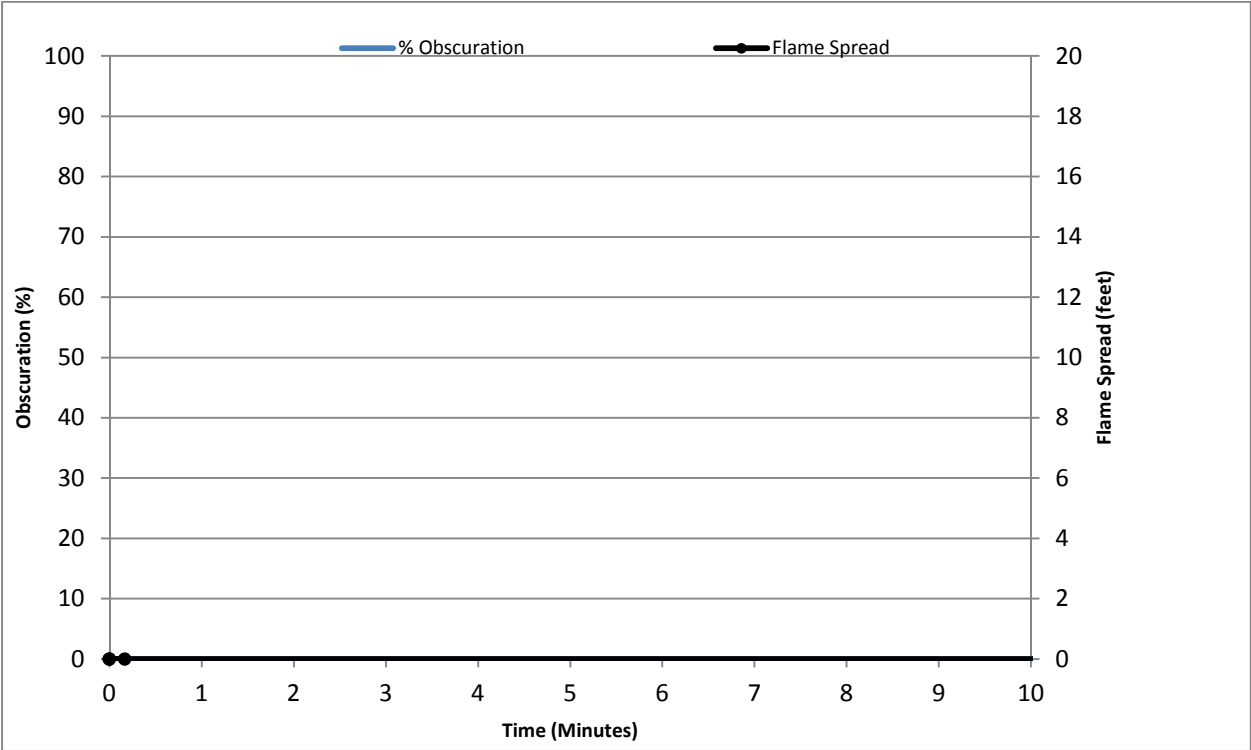
Calculated Smoke Developed (CSD):	0.0
Smoke Developed Index (SDI):	0
Area Under the Smoke Curve (Obs-min.):	0.00
Area Under Red Oak Curve (Obs-min.):	86.62

Post-Test Observations

Discoloration (Feet From Burner):	8
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Flame Spread / Smoke Results

Abilities First
Wave Pattern Wall Covering Tile.



Test Num.: 1
SV30895 / 4787938863
07251715

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