



August 19, 2020

Mr. Adil Aliev  
Vocal Booth To Go  
7311 Grove Rd Suite B200  
Frederick, MD, 21704  
US

Our Reference: SV31663/4789564550

Subject: Report Of Surface Burning Characteristics Tests On Samples As  
Submitted By Vocal Booth To Go

Dear Mr. Aliev

This is a Report summarizing the results of tests conducted under a preliminary investigation identified as Assignment No. 4789564550.

**GENERAL:**

Preliminary investigations are initiated to obtain information with respect to a product or products prior to submittal to UL LLC (UL) for Investigation, Classification and Follow-Up Service. This Report does not constitute evidence of such a submittal to UL. The results relate only to items tested.

**METHOD:**

Each test was conducted in accordance with Standard ANSI/UL723, Eleventh Edition, dated April 19, 2018, "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	Acoustical Felt Panel

Each test sample was supported by 2 in. hexagonal poultry netting supported by 1/4 in. diameter steel rods spaced 2 ft apart.

#### 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: Flame Spread Summary

Test No.	Test Code	Sample Description	CFS Calculated Flame Spread (Ceiling)	FSI Flame Spread Index (Ceiling)+	CFS Calculated Flame Spread (Floor)	FSI Flame Spread Index (Floor)++
1	08102010	Acoustical Felt Panel	0.00	0	4.83	5

+ - Flame Spread Index while material remained in the original test position.

++ - Ignition of molted residue on the furnace floor resulted in flame travel equivalent to calculated Flame Spread Index indicated.

Table 2: Smoke Developed Summary

Test No.	Test Code	Sample Description	CSD Calculated Smoke Developed (Prior to Floor Ignition)	SDI Smoke Developed Index (Prior to Floor Ignition)	CSD Calculated Smoke Developed (Entire Test Duration)	SDI Smoke Developed Index (Entire Test Duration)
1	08102010	Acoustical Felt Panel	73.1	75	150.3	150

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,



Theodore Ward (ext. 46684)  
 Engineer  
 Building Science Technologies

Reviewed by:



Jamila Shawon (ext. 2607)  
 Staff Engineer  
 Building Science Technologies

Project: 4789564550  
Tested by: Abran Garcia

File: SV31663  
Engineer: Theodore Ward

TestCode: 08102010  
Date: 2020-08-10

TEST METHOD: The test was conducted in accordance with UL 723, Eleventh Edition (2018/04/19).

Client Name: Vocal Booth To Go	Hot Test: Yes
Test Duration: 10 minutes	Test No.: 1
Mounting: Rods & Wire	Test Type: Developmental
Burn-Out Required: Yes	
<b>Test Sample:</b> Acoustical Felt Panel	

**FLAME SPREAD RESULTS**

**Ceiling Flame Spread Data**

Distance (Feet)	Time (Sec)
Ignition	4

**Floor Flame Spread Data**

Distance (Feet)	Time (Sec)	Distance (Feet)	Time (Sec)
Ignition	551	11	575
1	553	12	576
2	556	13	579
3	557	14	582
4	558	15	585
5	559	16	586
6	562	17	587
7	564	18	588
8	566	19	592
9	567	19.5	595
10	569		

Calculated Flame Spread (CFS): 0.00  
Flame Spread Index (FSI): 0  
Time to Ignition (sec): 4  
Maximum Flame Spread (ft): 0.0  
Area Under the Flame Spread Curve (ft.-min): 0.0  
Time to Floor Ignition (sec): 551  
Maximum Floor Flame Spread (ft): 19.5  
Calculated Floor Flame Spread: 4.83

**SMOKE RESULTS**

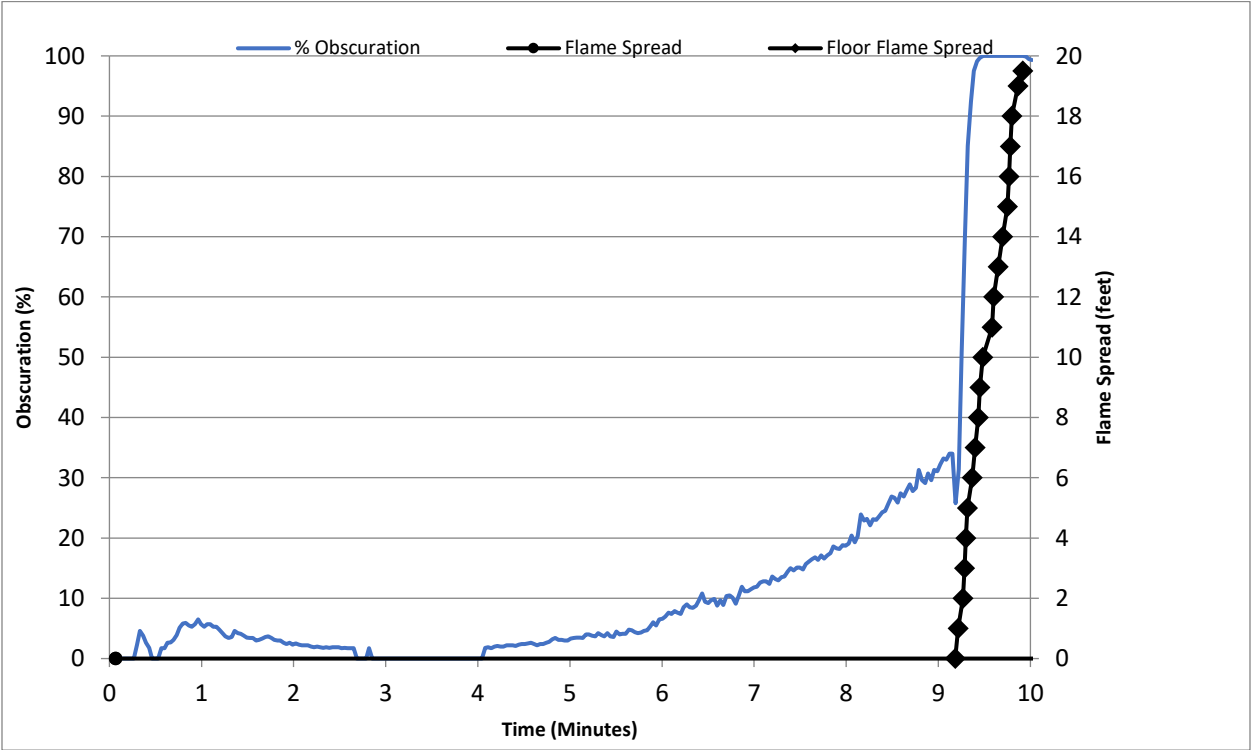
Calculated Smoke Developed (CSD): 150.3  
Smoke Developed Index (SDI): 150  
Area Under the Smoke Curve (Obs.-min.): 143.92  
Area Under Heptane (Obs.-min.): 95.78  
Area Under the Smoke Curve Before Floor Ignition (Obs.-min.): 70.00  
Smoke Developed Prior to Floor Ignition: 73.1

Post-Test Observations

Char (Feet From Burner): 24

# Flame Spread / Smoke Results

## Vocal Booth To Go Acoustical Felt Panel



Test Num.: 1  
SV31663 / 4789564550  
08102010

Flame Spread Index: 0  
Smoke Developed Index: 150  
Max. Flame Spread (ft.): 0.0