



February 26, 2018

Mr. Josh Leftwich
Interlam Corporation
391 Hickory Street
Mount Airy, NC, 27030

Our Reference: SV31116/4788343212

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

Dear Mr. Leftwich

This is a Report summarizing the results of a test conducted under a preliminary investigation identified as Assignment No. 4788343212.

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, 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	PET Acoustical Panel

Each test sample consisted of a length 24 ft long by 24 in. wide of the finished product.

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.

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	02221810	PET Acoustical Panel	2.43	0	17.91	20

+ - 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	02221810	PET Acoustical Panel	119.5	120	354.1	350

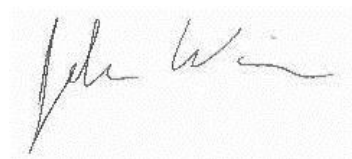
The Classification Marking of UL on the product is the only method provided by UL to identify products which have been produced under its Classification and Follow-Up Service. No use of a Classification Marking has been authorized as a result of this investigation.

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,

Reviewed by,



John Wiesner
Associate Project Engineer
Fire Protection Division



James F Smith
Staff Engineering Assoc
Fire Protection Division

Project: 4788343212
Tested by: ABRAN GARCIA

File: SV31116
Engineer: JOHN WIESNER

TestCode: 02221810
Date: 2018-02-22

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

Client Name: Interlam	Test No.: 1	Hot Test: Yes
Test Duration: 10 minutes	Test Type: Calibration	Burn-Out Required: Yes
Mounting: Rods and Wire		

Test Sample: PET Acoustical Panel

FLAME SPREAD RESULTS

Ceiling Flame Spread Data

Distance (Feet)	Time (Sec)
Ignition	0
0.5	49

Floor Flame Spread Data

Distance (Feet)	Time (Sec)	Distance (Feet)	Time (Sec)
Ignition	454	11	498
1	466	12	503
2	468	13	506
3	470	14	511
4	472	15	515
5	474	16	520
6	476	17	524
7	478	18	528
8	480	19	532
9	481	19.5	535
10	484		

Calculated Flame Spread (CFS): 2.43
Flame Spread Index (FSI): 0

Time to Ignition (sec): 0
Maximum Flame Spread (ft): 0.5
Area Under the Flame Spread Curve (ft.-min): 4.7

Time to Floor Ignition (sec): 454
Maximum Floor Flame Spread (ft): 19.5
Calculated Floor Flame Spread: 17.91

SMOKE RESULTS

Calculated Smoke Developed (CSD): 354.1
Smoke Developed Index (SDI): 350

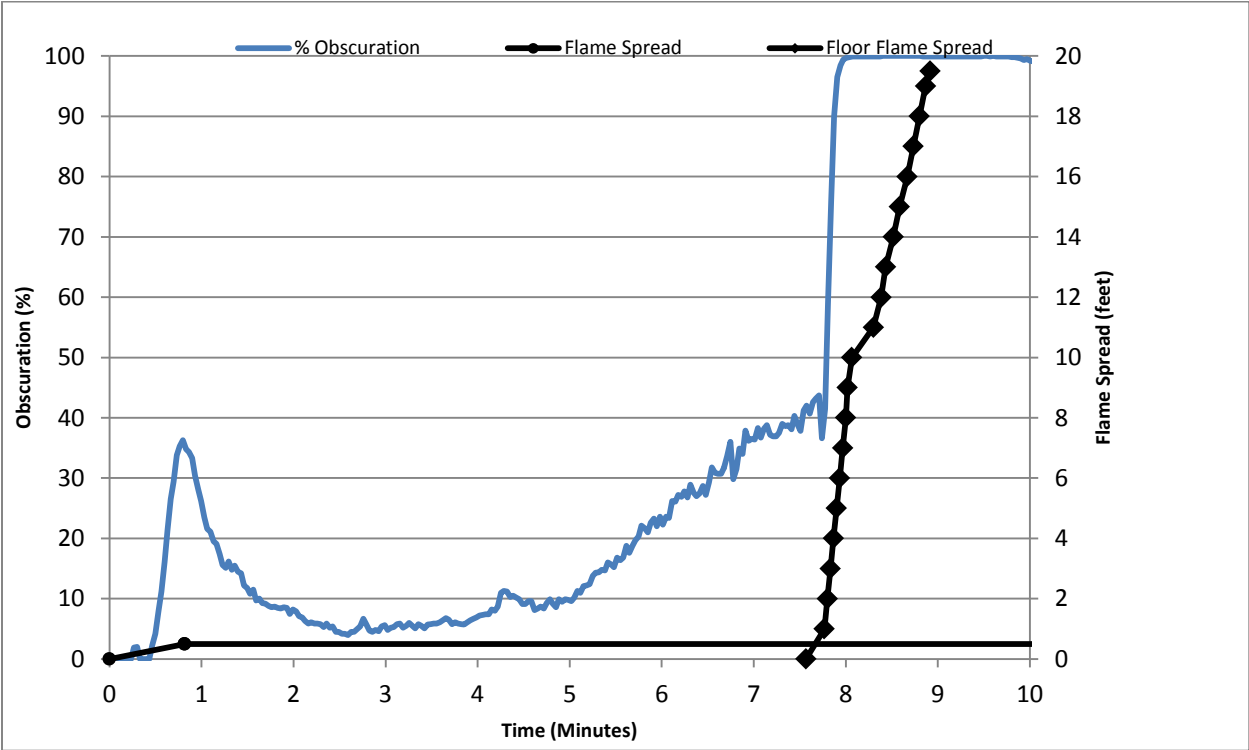
Area Under the Smoke Curve (Obs.-min.): 343.73
Area Under Red Oak Curve (Obs.-min.): 97.07
Area Under the Smoke Curve Before Floor Ignition (Obs.-min.): 115.97
Smoke Developed Prior to Floor Ignition: 119.5

Post-Test Observations

Char (Feet From Burner): 24

Flame Spread / Smoke Results

Interlam PET Acoustical Panel



Test Num.: 1
SV31116 / 4788343212
02221810

Flame Spread Index: 0
Smoke Developed Index: 350
Max. Flame Spread (ft.): 0.5