



May 28, 2021

Elettra de Pellegrin  
Slalom SRL  
Via Rossi 69  
Arcore, MB, 20862  
Italy

Our Reference: R40566/4789863599

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

Dear Elettra,

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. 4789863599.

**GENERAL:**

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	ECOrange Tailor Made

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	05202107	ECOrange Tailor Made	0.00	0	13.03	15

+ - 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	05202107	ECOrange Tailor Made	138.5	140	319.6	300

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

Thomas Sias  
 Senior Engineering Associate  
 Built Environment

Project: 4789863599  
Tested by: Abran Garcia

File: R40566  
Engineer: Thomas Sias

TestCode: 05202107  
Date: 2021-05-20

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

Client Name: Slalom SRL	Test No.: 1	Hot Test: Yes
Test Duration: 10 minutes	Test Type: Developmental	Burn-Out Required: Yes
Mounting: Rods & Wire		

**Test Sample:** EOrange Tailor Made

### FLAME SPREAD RESULTS

#### Ceiling Flame Spread Data

Distance (Feet)	Time (Sec)
Ignition	3

#### Floor Flame Spread Data

Distance (Feet)	Time (Sec)	Distance (Feet)	Time (Sec)
Ignition	492	11	521
1	495	12	523
2	499	13	529
3	503	14	530
4	509	15	531
5	515	16	540
6	516	17	542
7	517	18	549
8	518	19	559
9	519	19.5	562
10	520		

Calculated Flame Spread (CFS): 0.00  
Flame Spread Index (FSI): 0

Time to Ignition (sec): 3  
Maximum Flame Spread (ft): 0.0  
Area Under the Flame Spread Curve (ft.-min): 0.0

Time to Floor Ignition (sec): 492  
Maximum Floor Flame Spread (ft): 19.5  
Calculated Floor Flame Spread: 13.03

### SMOKE RESULTS

Calculated Smoke Developed (CSD): 319.6  
Smoke Developed Index (SDI): 300

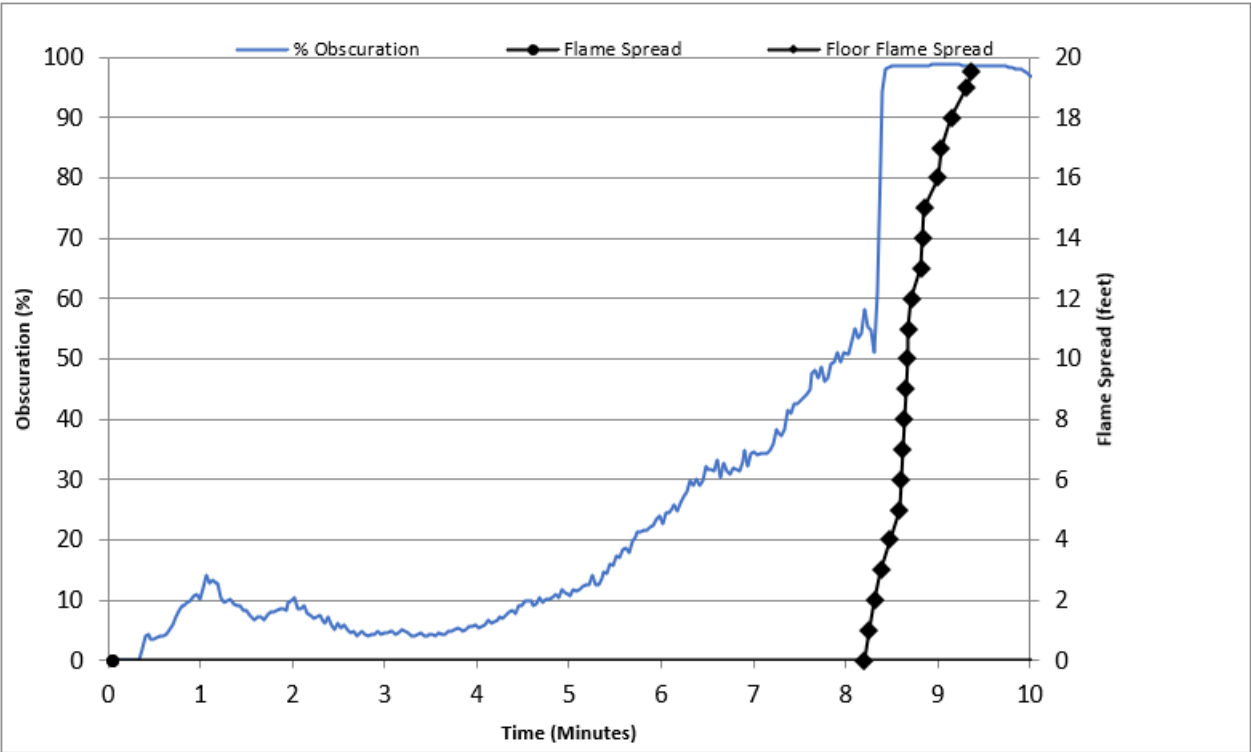
Area Under the Smoke Curve (Obs.-min.): 303.58  
Area Under Heptane (Obs.-min.): 94.98  
Area Under the Smoke Curve Before Floor Ignition (Obs.-min.): 131.51  
Smoke Developed Prior to Floor Ignition: 138.5

### Post-Test Observations

Char (Feet From Burner): 24

# Flame Spread / Smoke Results

Slalom SRL  
EOrange Tailor Made



Test Num.: 1  
R40566 / 4789863599  
05202107

Flame Spread Index: 0  
Smoke Developed Index: 300  
Max. Flame Spread (ft.): 0.0