

## TEST REPORT

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Date : 2025-08-25

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CUSTOMER NAME: PT. TOILON INDONESIA  
ADDRESS: JL. RAYA SERANG KM. 16,8 DESA TALAGA, CIKUPA, TANGERANG  
15710 INDONESIA

Sample Name : TOILON CROSSLINKED POLYOLEFIN FOAM WITH ALUMINUM FOIL  
Manufacturer : PT. TOILON INDONESIA

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

\*\*\*\*\*

SGS Ref. No. : AJFTS25005249R01\_EN  
Date of Receipt : 2025-08-01  
Testing Period : 2025-08-01 ~ 2025-08-25  
Test result(s) : For further details, please refer to the following page(s)  
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for  
SGS-CSTC Standards Technical  
Services Co., Ltd. ShenZhen Branch.

Jessie Ho  
Authorized signatory



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### I. Test conducted

This test was conducted in accordance with ASTM E84-2024 Standard Test Method for Surface Burning Characteristics of Building Materials.

### II. Introduction

The method, designated as ASTM E84-2024, Standard Method of Test for Surface Burning Characteristics of Building Materials, is designed to determine the relative surface burning characteristics of materials under specific test conditions. Results are expressed in terms of flame spread index (FSI) and smoke developed index (SDI).

The purpose of this test method is to determine the relative burning behavior of the material by observing the flame spread along the specimen. Flame spread and smoke developed index are reported. However, there is not necessarily a relationship between these two measurements.

### III. Test procedure

The tunnel is preheated to 65.6°C(150°F), as measured by the floor-embedded thermocouple located 7.09m (23.25 ft) downstream of the burner ports, and allowed to cool to 40.6°C(105°F), as measured by the floor-embedded thermocouple located 3.96m (13 ft) from the burners. At this time the tunnel lid is raised and the test sample is placed along the ledges of the tunnel so as to form a continuous ceiling 7.32m (24 ft) long, 304.8mm (12 in) above the floor. The lid is then lowered into place.

Upon ignition of the gas burners, the flame spread distance is observed and recorded every 30 seconds. Flame spread distance versus time is plotted ignoring any flame front recessions. If the area under the curve (A) is less than or equal to 97.5 ft·min,  $FSI = 0.515 \cdot A$ ; if greater,  $FSI = 4900 / (195 - A)$ .

The test results for smoke shall be plotted and the area under the curve shall be divided by the area under the curve for heptane, multiplied by 100, and rounded to the nearest multiple of five to establish a numerical smoke-developed index (SDI).

### IV. Conditioning

Prior to testing, the sample was conditioned, to a constant weight at a temperature of  $23 \pm 2.8^\circ\text{C}$  ( $73.4 \pm 5^\circ\text{F}$ ) and at a relative humidity of  $50 \pm 5\%$ .



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## Sample details

Sample description	Foam + Aluminum foil
Color	Silver
Thickness	15.3mm
Area density	1.9 kg/m <sup>2</sup>
Exposed face	Silver surface

## Mounting methods:

The 20-gage, 2-in. (51-mm) hexagonal galvanized steel netting should span the width of the tunnel, then the specimen shall be placed on the netting.

The specimen is consisted of 1 piece of 595mm wide by 6640mm long and 1 piece of 595mm wide by 890mm long, all sections jointed end-to-end.

The assembly size is 7530mm x 595mm x 15.3mm.

## Test results:

Flame Spread Index, FSI	Smoke-developed Index, SDI
0	45

## Rating:

The National Fire Protection Association Life Safety Code 101, Chapter 10, Section 10.2.3 Interior Wall and Ceiling Finish Classification, has a means of classifying materials with respect to Flame Spread and Smoke Developed when tested in accordance with ASTM E84 or UL 723 Method of Test of Surface Burning Characteristics of Building Materials.

International Building Code, Chapter 8, Interior Finishes, Section 803 Wall and Ceiling Finishes, was classified in accordance with ASTM E 84 or UL 723. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-developed indexes.

NFPA 5000 Building Construction and Safety Code, Chapter 10.2.3.3 Interior Wall and Ceiling Finish Materials Tested in Accordance with ASTM E84 or UL 723.



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Shenzhen Branch Testing Center Materials Laboratory

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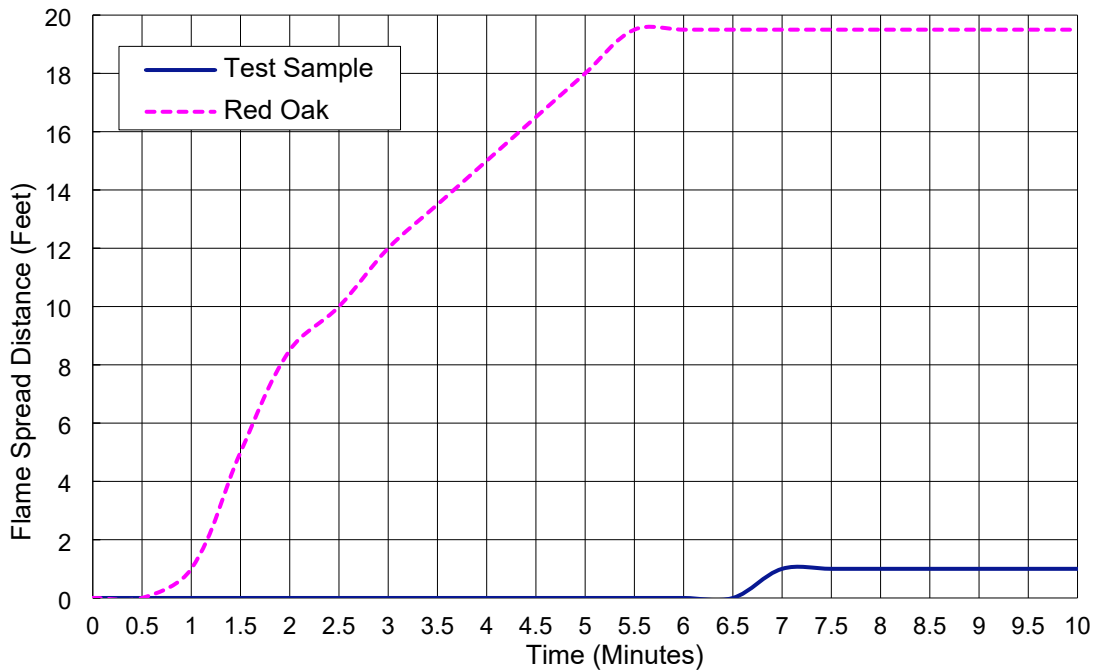
**The classifications are as follows:**

Index	Class A	Class B	Class C
Flame Spread Index	0-25	26-75	76-200
Smoke-developed Index	0-450	0-450	0-450

Since the tested sample received a Flame Spread Index 0 and a Smoke-developed Index 45, it would **meet** the requirements of **Class A** interior Wall & Ceiling Finish Category.

**Graphical results:**

Flame Spread Chart



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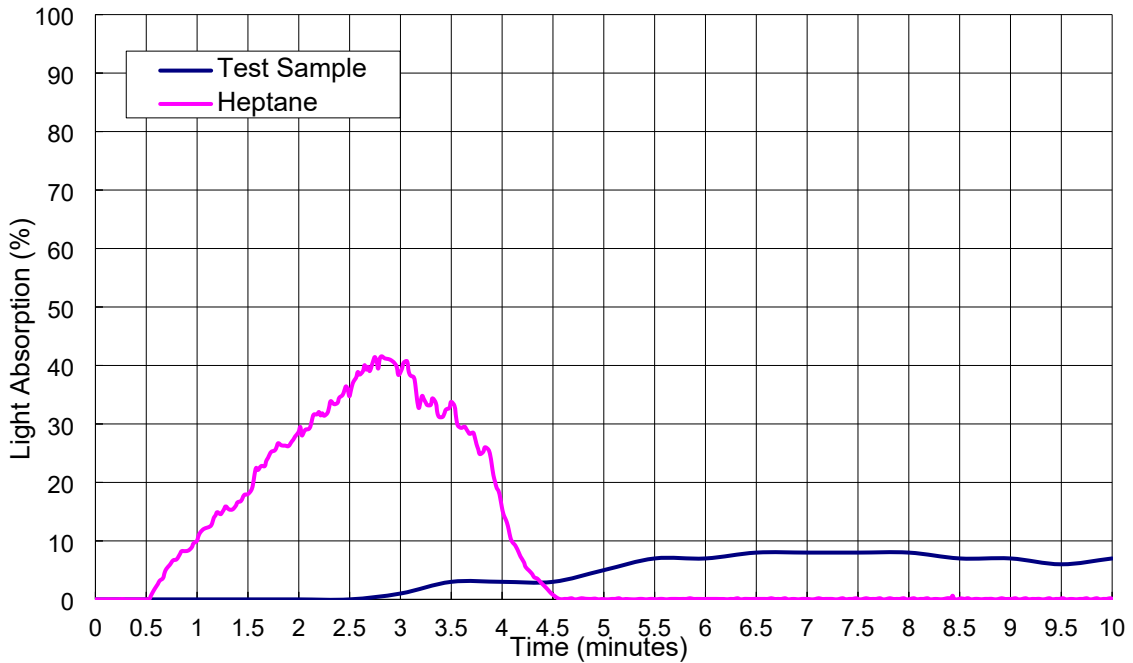
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Smoke Developed Chart



**Observations:**

Time to ignition (sec)	134
Time to Max. FS (sec)	408
Maximum FS (feet)	1
Observations	None

**Statement:** This declaration of conformity is only based on the result of this laboratory activity, the impact of the uncertainty of the results was not included.



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Photo Appendix:



Appendix information:

- 1.The test method was carried out by SGS-CSTC Standards Technical Services Co., Ltd. Anji Branch.
- 2.The test report shall only be used for clients' scientific research, teaching, internal quality control, product research and development, etc... and just for internal reference.

\*\*\*\*\*End of report\*\*\*\*\*



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