DB HOUSING CO.,LTD

27-19, Deokjeong-ro 125beon-gil, Samseong-myeon, Eumseong-gun, Chungcheongbuk-do, Republic of Korea

Sample Description	:	Phenolic foam insulation board, high flame retardant performance version
Color	:	Light pink
Style/Item No.	:	/

The above sample(s) data and information was / were submitted and identified on behalf of the client. SGS is not responsible for the authenticity, integrity and results of the data and information and / or the validity of the conclusion arising therefrom. Results apply to the sample as received.

****

Sample Receiving Date	:	Aug 18,2026
Testing Period	:	Aug 18,2026 to Aug 26,2026
Test Required	:	ASTM E84-2025 Standard Test Method for Surface Burning Characteristics of Building Materials.
Test result(s)	:	See attached sheet

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd Anji Branch

Eva Zhang
Approved signatory

Scan to see the report
AJFTS26006840R01
Verification:
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I. Test conducted

This test was conducted in accordance with ASTM E84-2025 Standard Test Method for Surface Burning Characteristics of Building Materials.

II. Introduction

The method, designated as ASTM E84, 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℃(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℃(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·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). For smoke-developed indexes 200 or more, the calculated value shall be rounded to the nearest 50 points.

IV. Conditioning

Prior to testing, the sample was conditioned, to a constant weight at a temperature of (23±2.8)°C (73.4±5°F) and at a relative humidity of 50±5%.

检验检测专用章 Inspection & Testing Services
SGS-CSTC Standards Technical Services Co., Ltd. Anji Branch

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Sample details

Sample description	Foam board
Color	Silvery
Thickness	53.0mm
Area density	2.4 kg/m^2
Exposed face	Any surface

Mounting methods:

The specimen was self-supporting and placed directly on the inner ledges of the tunnel.

The specimens are consisted of 12 pieces of 600mm wide by 600mm long, all sections jointed end-to-end.

The assembly size is 7200mm x 600mm x 53.0mm.

Test results:

Flame Spread Index, FSI	Smoke-developed Index, SDI
15	0

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.

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 15 and a Smoke-developed Index 0, it would **meet** the requirements of **Class A** interior Wall & Ceiling Finish Category.

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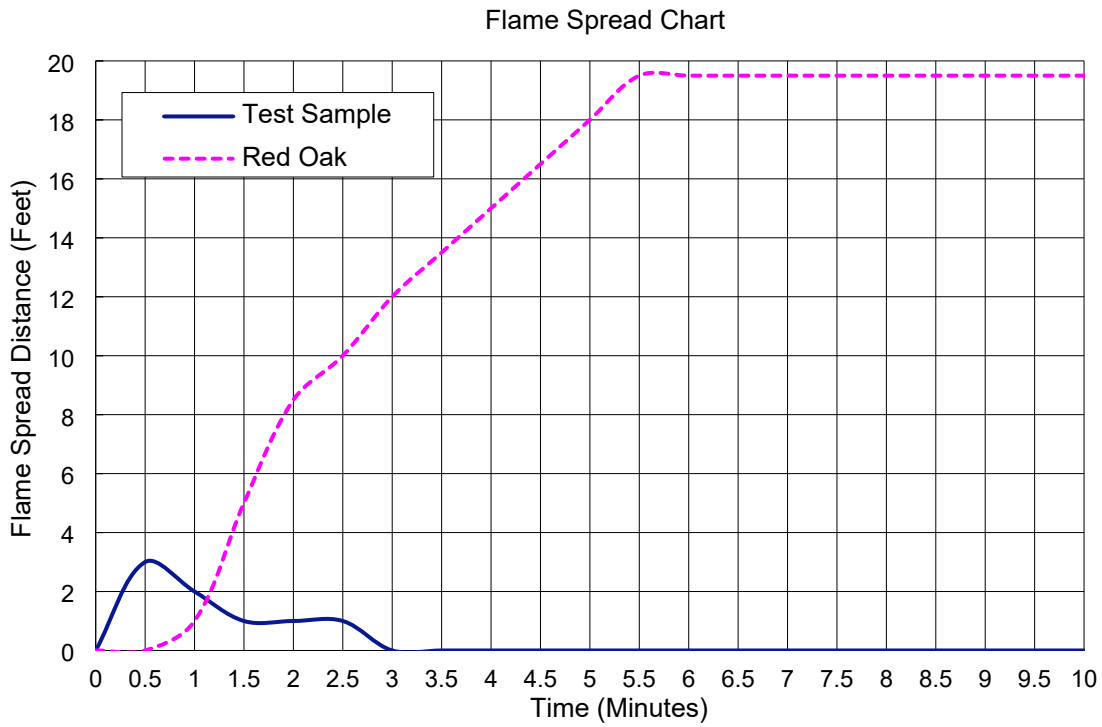
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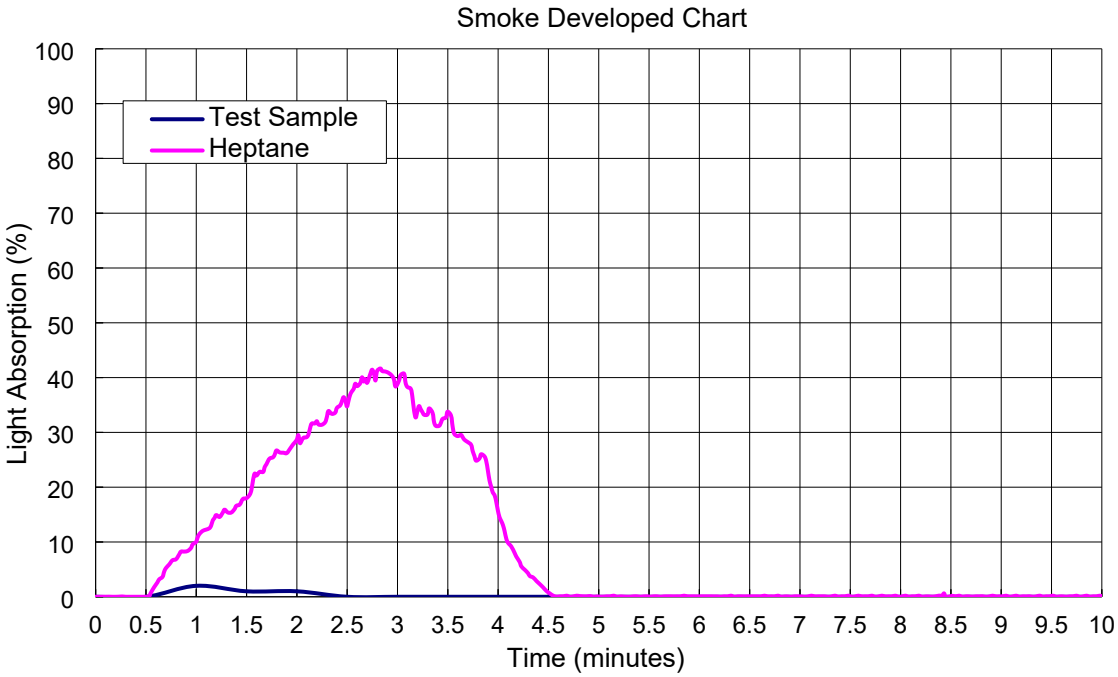
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Graphical results:





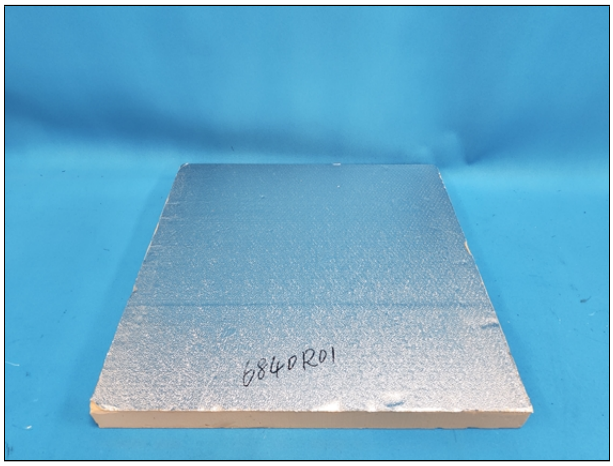
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Observations:

Time to ignition (sec)	12
Time to Max. FS (sec)	21
Maximum FS (feet)	3
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.

Photo Appendix:



SGS authenticate the photo on original report only

End of Report

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