TEST REPORT

No. : XMIN2506001326CM01_EN

Date : 2025-06-26

CUSTOMER NAME: QINGDAO BAREFOOT CONSTRUCTION MATERIAL CO.,LTD

ADDRESS: LAIXI,QINGDAO,SHANDONG,CHINA

Sample Name : Wood plastic composite Plank

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.

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SGS Ref. No. : SDFTS25003674R01_EN

Date of Receipt : 2025-06-13

Testing Period : 2025-06-13 ~ 2025-06-26

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. Xiamen Branch.

Bryan Hong
Authorized signatory

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Test Required: To determine the flame spread index (FSI) and smoke-developed index (SDI) of the sample's surface burning characteristics when it is subjected to the conditions of specified in ASTM E84-24 "Standard Test Method for Surface Burning Characteristics of Building Materials"

I. Test Conducted

This test was conducted in accordance with ASTM E84-24 Standard Test Method for Surface Burning Characteristics of Building Materials.

II. Introduction

The method, designated as ASTM E84-24, "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).

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)%.

Sample Details

Sample description	Board
Sample size	140mm x 610mm
Thickness	12mm

Exposed face: Wood grain surface

Mounting methods:

The test specimen consisted of a total of 50 sections of material. The sections were butted together during testing to form the required specimen length. The specimen was self-supporting on the ledges of the test chamber.

Test results:

Flame Spread Index，FSI	Smoke-developed Index，SDI
30	400

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 ASTME84, UL 723 “Method of Test of Surface Burning Characteristics of Building Materials”.

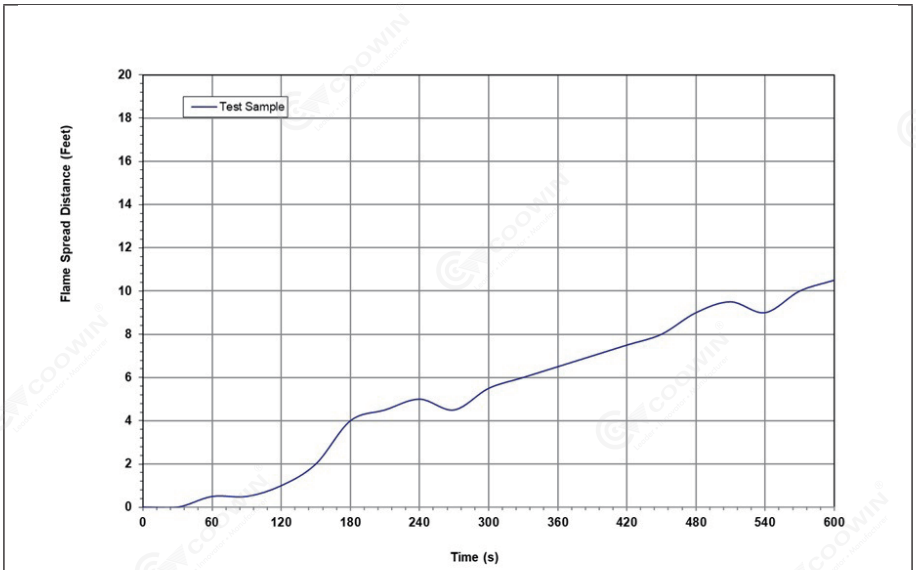
International Building Code, Chapter 8, Interior Finishes, Section 803 “Wall and Ceiling Finishes”, was classified in accordance with ASTM E84 or UL 723. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-developed indexes.

The classifications are as follows:

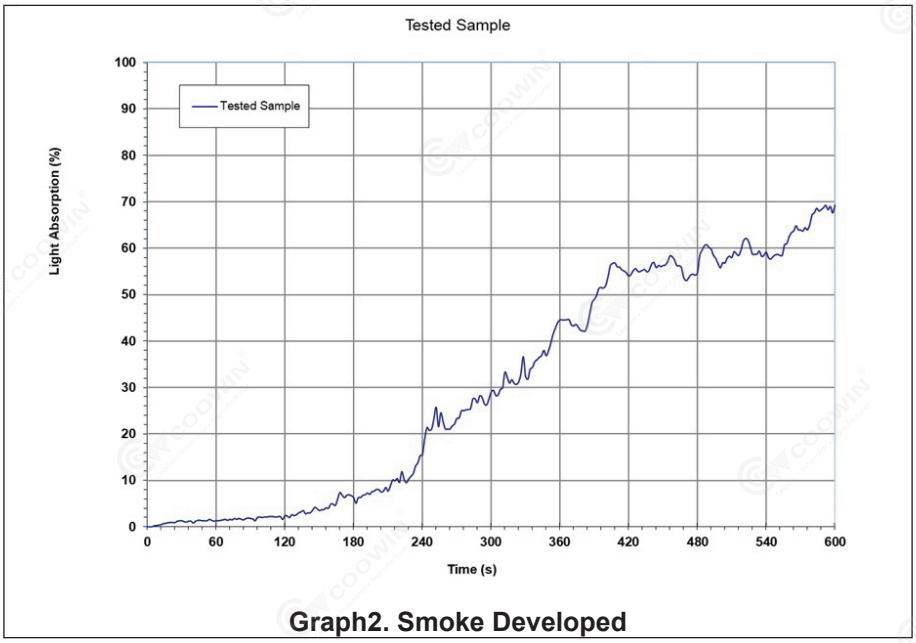
Classification	Flame Spread Index，FSI	Smoke-developed Index，SDI
Class A	0-25	0-450
Class B	26-75	0-450
Class C	76-200	0-450

Since the tested sample received a Flame Spread Index 30 and a Smoke-developed Index 400, it **would meet** the requirements of **Class B** interior Wall & Ceiling Finish Category.

Graphical Results:



Graph1. Flame Spread



Graph2. Smoke Developed

Observations

Time to ignition (sec)	60
Time to Max. FS (sec)	590
Maximum FS (feet)	10.5
Observations	Flaming Droplets

Warning:

The use of supporting materials on the underside of the test specimen has the ability to lower the flame spread index from those which might be obtained if the specimen could be tested without such support. These test results do not necessarily relate to indices obtained by testing materials without such support.

Testing of materials that melt, drip, or delaminate to such a degree that the continuity of the flame front is destroyed, results in low flame spread indices that do not relate directly to indices obtained by testing materials that remain in place.

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The test results relate only to the specimens of the product in the form in which were tested. Small differences in the composition or thickness of the product may significantly affect the performance during the test and may therefore invalidate the test results. Care should be taken to ensure that any product, which is supplied or used, is fully represented by the specimens, which were tested.

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:

	
Sample face	Sample back

Note: The above test project/method was carried out by subcontractors.

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

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