

TEST REPORT

No. : GZIN1903013615CM

Date : Apr 08, 2019

Page: 1 of 6



CUSTOMER NAME: SHENZHEN YUTI TECHNOLOGY CO., LTD
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Sample Name : FRP Sheet

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.

Date of Receipt : Mar 27, 2019
Testing Start Date : Mar 27, 2019
Testing End Date : Apr 08, 2019
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. GZ Branch Testing
Center

Salon

Salon Liu
Authorized signatory



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch Testing Center Construction Material Laboratory

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Test Result Summary

No.	Test(s) Requested	Result(s)	Comments
1	ASTM E84-18b Standard Test Method for Surface Burning Characteristics of Building Materials	Class A	/
For further details, please refer to the following page(s)			



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Test Conducted:

This test was conducted in accordance with ASTM E84-18b Standard Test Method for Surface Burning Characteristics of Building Materials

Introduction:

The method, designated as ASTM E84-18b, "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.

Test Procedure:

The tunnel is preheated to 150°F, as measured by the floor-embedded thermocouple located 23.25 feet downstream of the burner ports, and allowed to cool to 105°F, as measured by the floor-embedded thermocouple located 13 feet 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 24 feet long, 12 inches 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 15 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 min·ft, FSI = 0.515·A; if greater, FSI = 4900/(195·A). Smoke developed is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, arbitrarily established as 0 and 100, respectively.

Sample Description:

Thickness	:	Approximately 3.5mm
Exposed face	:	White face

Sample Preparation:

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



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The specimen was supported during testing by 1/6' round metal rods placed at nominal 18 inch intervals across the width of the test chamber.

Test Results:

Test data and observations:

Ignition time: 68 seconds.
Maximum flame spread (ft): 6.5
Time To Maximum Spread: 283 seconds.
Observations of the burning characteristics No
Test Duration: 10 minutes.
FS*Time area (ft*min): 47.3
Smoke area (%A*min): 290.7
Red oak smoke area (%A*min): 90.8

Summary of results:

Flame-spread Index (FSI)	Smoke-developed Index (SDI)
25	300

Rating:

The National Fire Protection Association Life Safety Code 101, "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 NFPA 255, (ASTM E84) "Method of Test of Surface Burning Characteristics of Building Materials".

The classifications are as follows:

	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

Conclusion:

Refer to the National Fire Protection Association Life Safety Code 101, "Interior Wall and Ceiling Finish Classification", the submitted sample meets the requirement of Class A.



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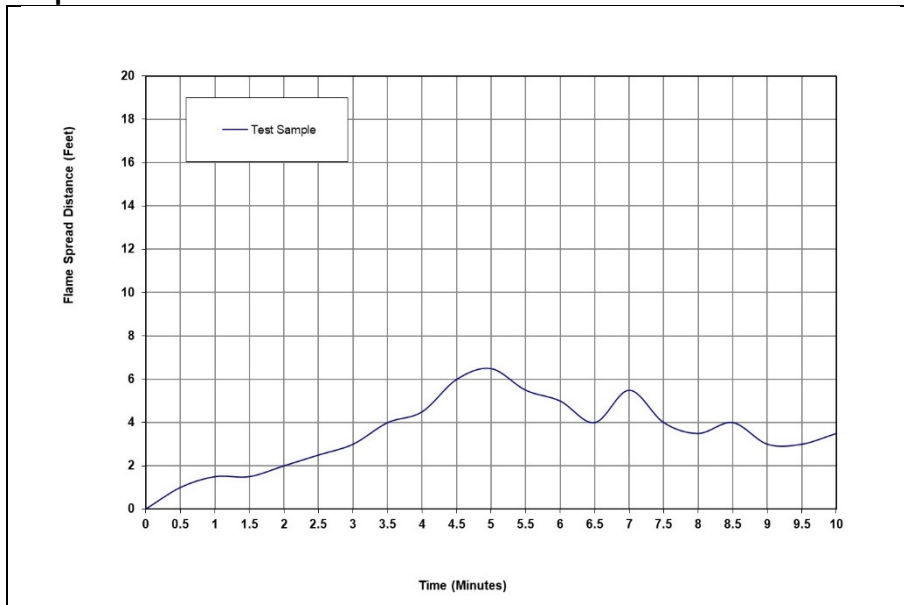
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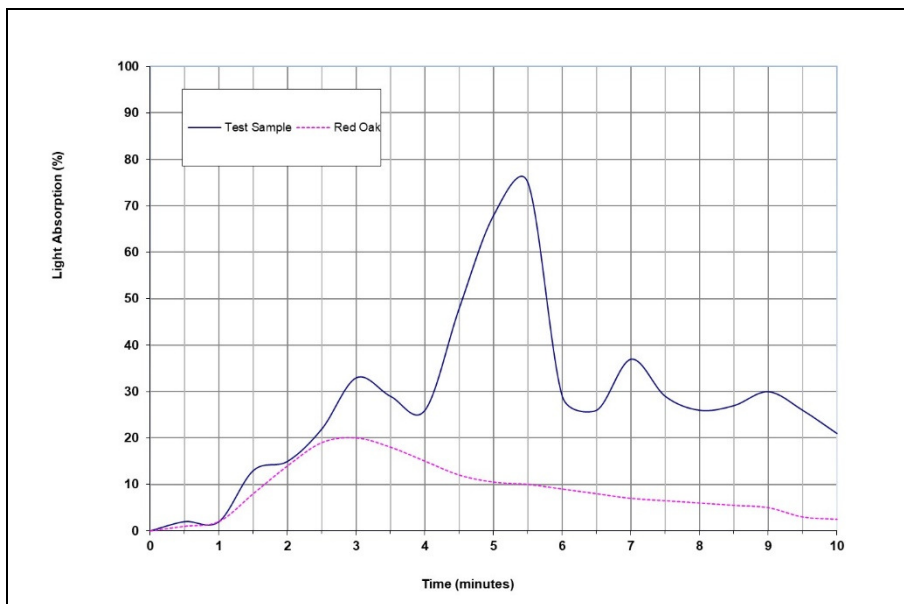
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Appendix 1-Graphs:



Graph1. Flame Spread Index



Graph2. Smoke Developed Index

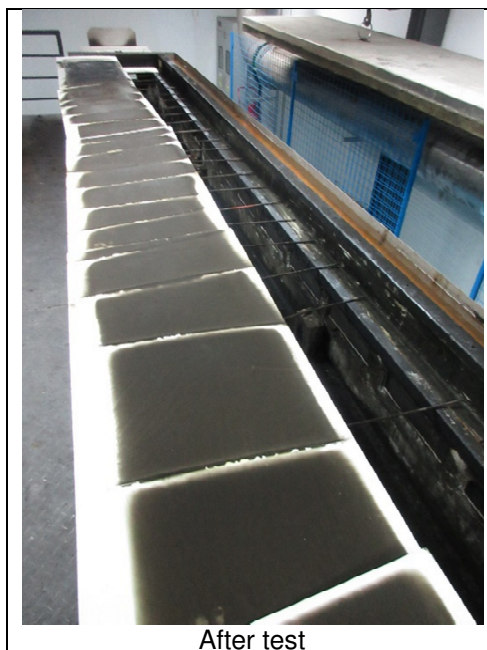
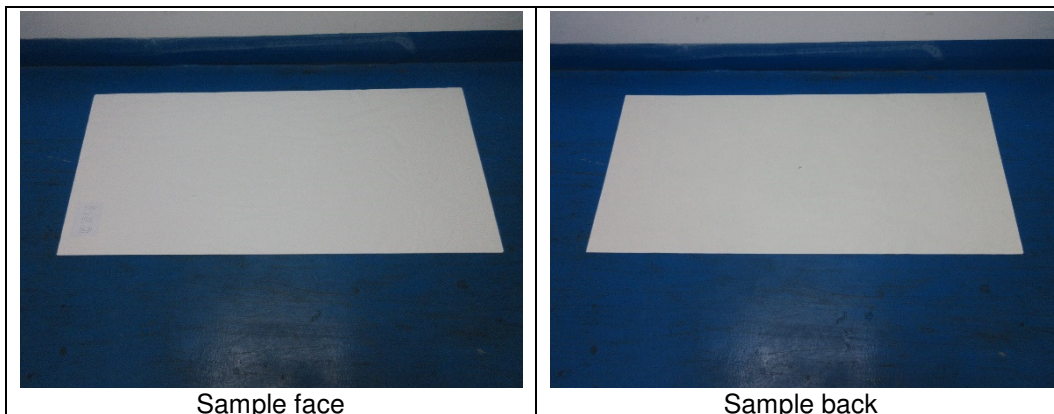
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Appendix 2-Pictures:



Note: The above test was carried out by SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch

*****End of Report*****