

Test Report

No. AJFS1706003494RS

Date: JUN.15, 2017

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HUIDONG MEIXIN PLASTIC LUMBER PRODUCTS MANUFACTURING CO., LTD
NGA INDUSTRIAL PARK, DALING, HUIDONG, GUANGDONG PROVINCE, PRC

The following sample(s) was / were submitted and identified on behalf of the client as:

Sample Description: CO-EXTRUDED WOOD-PLASTIC COMPOSITE

Color: TEAK

Thickness: 22.5mm

Density: 1.18g/cm³

Style/Item No.: US01

Manufacturer: HUIDONG MEIXIN PLASTIC LUMBER PRODUCTS MANUFACTURING CO., LTD

Test Requested:

BS 476 Part 6:1989+A1:2009 "Fire tests on building materials and structures Part 6: Method of test for propagation for products".

Test Results: -- See attached sheet --

Test Period:

Sample Receiving Date : JUN.05, 2017

Test Performing Date : JUN.05, 2017 TO JUN.13, 2017

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

Allen Zou
Technical Manager



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I. Test conducted

This test was performed in accordance with the procedure specified in BS 476 Part 6:1989 + A1:2009 "Fire tests on building materials and structures—Part 6:Method of test for fire propagation for products".

II. Sample details

Sample description	CO-EXTRUDED WOOD-PLASTIC COMPOSITE
Thickness	22.5mm
Color	Brown
Specimen size	225mm×225mm

III. Test details

Conditioning of specimens:	Prior to testing, the sample was conditioned to constant mass at a temperature of 23 ± 2 °C, and a relative humidity of 50 ± 5 %, and maintained in this condition until required for testing.
Exposed Face:	One surface
Form in which the specimens were tested:	Composite

IV. Test results

Throughout the test on each specimen, carefully observe the material's behaviour within the apparatus and take special note of any of the following phenomena listed in clause 9.2 of the standard. None of the listed phenomena was observed and the test results on all three specimens tested were valid.

The index of the performance for the specimen was determined as follows:

$$S_1 = \sum_{t=0.5}^{t=3} \frac{\theta_s - \theta_c}{10t}, \quad S_2 = \sum_{t=4}^{t=10} \frac{\theta_s - \theta_c}{10t}, \quad S_3 = \sum_{t=12}^{t=20} \frac{\theta_s - \theta_c}{10t}, \quad S = S_1 + S_2 + S_3$$

Where:

S = index of performance for each of the specimens tested and S1, S2 and S3 are sub- indices

t = Time in minutes from the origin at which readings are taken

θ_s = Temperature rise in °C for the specimen at time, t

θ_c = Temperature rise in °C for the calibration sheet at time, t

To be continued....



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Fire Propagation index $I = i_1 + i_2 + i_3$

Where, i_1 , i_2 and i_3 are given by the expressions:

$$i_1 = \frac{1}{3} [(S_1)_A + (S_1)_B + (S_1)_C], \quad i_2 = \frac{1}{3} [(S_2)_A + (S_2)_B + (S_2)_C], \quad i_3 = \frac{1}{3} [(S_3)_A + (S_3)_B + (S_3)_C]$$

The following test results were obtained for each specimen tested:

Specimen No.	Sub - indices			Index of performance
	S ₁	S ₂	S ₃	S
A	4.40	3.50	1.11	9.01
B	4.23	3.20	1.01	8.44
C	4.31	3.35	0.99	8.65

Number of Specimens tested	Sub-index i_1	Sub-index i_2	Sub-index i_3	Fire Propagation index I
3	4.31	3.35	1.04	8.70

Note: If a suffix “R” is included in the above fire propagation index I, this indicates that the results should be treated with caution.

Statements:

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test. They are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

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.

To be continued....



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Photo Appendix:



SGS authenticate the photo on original report only

End of Report



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Anji Branch

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