

TEST REPORT

No. : XMIN180400650CCM

Date : Apr.26, 2018

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CUSTOMER NAME: QINGDAO BAREFOOT CONSTRUCTION MATERIAL CO.,LTD
 ADDRESS: HUIBU INDUSTRIAL PARK, PINGDU, QINGDAO, SHANDONG, CHINA

Sample Name : WPC PLANK
 Materials : WPC
 Manufacturer : COOWIN

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.

Test Required : Selected test(s) as requested by applicant
 SGS Ref. No. : SDHL1804007324FB
 Date of Receipt : Apr.17, 2018
 Testing Start Date : Apr.17, 2018
 Testing End Date : Apr.25, 2018

Test Result Summary

Test(s) Requested	Result(s)
EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements-Part 1: Classification using data from reaction to fire tests	Classification: Bfl-s1

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)

***** To be continued*****

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



Civi Huang Authorized Signatory



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

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Test Conducted:

This test is conducted as per EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements-Part 1: Classification using data from reaction to fire tests.

And the test methods as following:

- 1.EN ISO 9239-1:2010 Reaction to fire tests for floorings-Part 1: Determination of the burning behaviour using a radiant heat source.
- 2.EN ISO 11925-2:2010+AC:2011 Reaction to fire tests-Ignitability of building products subjected to direct impingement of flame-Part 2: Single-flame source test.

Mounting and fixing (For EN ISO 9239-1:2010):

Fibre cement board, with its density about 1800kg/m³, thickness about 8mm, is as the substrate.

The specimens were fixed mechanically to the substrate.

Test Results:

Test method	Parameter	Number of tests	Results
EN ISO 9239-1:2010	The mean value for the critical heat flux (CHF and/or HF-30) from the same orientation	3	≥11 kW/m ²
	Smoking measurement Integrated smoke value		83.6%×min
	Comments and Observation		Charring
EN ISO 11925-2:2010+AC:2011 Exposure = 15 s	$F_s \leq 150$ mm within 20 s	12	Yes

Remark :

- 1) Specimens that do not ignite or which spread flame less than 110 mm have a critical heat flux ≥ 11kW/m²
- 2) Above value is the mean value for the critical flux (CHF and/or HF-30) from the three same orientation specimens.

Classification and direct field of application

This classification has been carried out in accordance with EN 13501-1:2007+A1:2009.

***** To be continued*****



SGS-CSTC (Singapore) Technical Services Co., Ltd.
Xiamen Branch Testing Center Construction Material Laboratory

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Classification:

Fire behaviour		Smoke production	
B _{fl}	—	s	1

Remark:

- 1.The classes with their corresponding fire performance are given in Table 2.
- 2.Reaction to fire classification is based on the 7-step scale of A1fl to F fl, where A1fl is good and F fl is bad.
- 3.The above test was carried out by SGS-CSTC Standards Technical Services Co., Ltd. Shunde Branch

Statement:

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.

Warning:

This classification report does not represent type approval or certification of the product. The test laboratory has, therefore, play no part in sampling the product for the test, although it holds appropriate references to the manufacturer’s factory production control that is aimed to be relevant to the samples tested and that will provide for their traceability.

***** To be continued*****



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Table 2-Classes of reaction to fire performance for floorings

Class	Test method(s)	Classification criteria	Additional classification
A1 _{fl}	EN ISO 1182 ^a and	$\Delta T \leq 30$ °C; and $\Delta m \leq 50$ %; and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$PCS \leq 2,0$ MJ/kg ^a and $PCS \leq 2,0$ MJ/kg ^b and $PCS \leq 1,4$ MJ/m ² ^c and $PCS \leq 2,0$ MJ/kg ^d	-
A2 _{fl}	EN ISO 1182 ^a or	$\Delta T \leq 50$ °C and $\Delta m \leq 50$ % and $t_f \leq 20$ s	-
	EN ISO 1716 and	$PCS \leq 3,0$ MJ/kg ^a and $PCS \leq 4,0$ MJ/m ² ^b and $PCS \leq 4,0$ MJ/m ² ^c and $PCS \leq 3,0$ MJ/kg ^d	-
	EN ISO 9239-1 ^e	Critical flux $f \geq 8,0$ kW/m ²	Smoke production ^g
B _{fl}	EN ISO 9239-1 ^e and	Critical flux $f \geq 8,0$ kW/m ²	Smoke production ^g
	EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150$ mm within 20 s	-
C _{fl}	EN ISO 9239-1 ^e and	Critical flux $f \geq 4,5$ kW/m ²	Smoke production ^g
	EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150$ mm within 20 s	
D _{fl}	EN ISO 9239-1 ^e and	Critical flux $f \geq 3,0$ kW/m ²	Smoke production ^g
	EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150$ mm within 20 s	
E _{fl}	EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150$ mm within 20 s	
F _{fl}	No performance determined		

^a For homogeneous products and substantial components of non-homogeneous products.

^b For any external non-substantial component of non-homogeneous products.

^c For any internal non-substantial component of non-homogeneous products.

^d For the product as a whole.

^e Test duration = 30 min.

^f Critical flux is defined as the radiant flux at which the flame extinguishes or the radiant flux after a test period of 30 min, whichever is the lower (i.e. the flux corresponding with the furthest extent of spread of flame).

^g **s1** = Smoke ≤ 750 % minutes;

s2 = not s1.

^h Under conditions of surface flame attack and, if appropriate to the end use application of the product, edge flame attack

***** To be continued*****

