

TEST REPORT

No. : XMIN190501141CCM

Date : Jun.11, 2019

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CUSTOMER NAME: CFL FLOORING (CHINA) CO., LTD
ADDRESS: NO.111 CHANGJIANG ROAD, JIASHAN DEVELOPMENT AREA, JIAXING,
P.R. CHINA


Sample Name : RIGID LVT
Spec. : 4+1mm backing
Manufacturer : CFL FLOORING (CHINA) CO., LTD

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. : GZIN1905026466MR
Date of Receipt : May.27, 2019
Testing Start Date : May.27, 2019
Testing End Date : Jun.10, 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)

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

Signed for
SGS-CSTC Standards Technical
Services Co., Ltd. Xiamen Branch
Testing Center



Bryan Hong Authorized Signatory



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Xiamen Branch Testing Center

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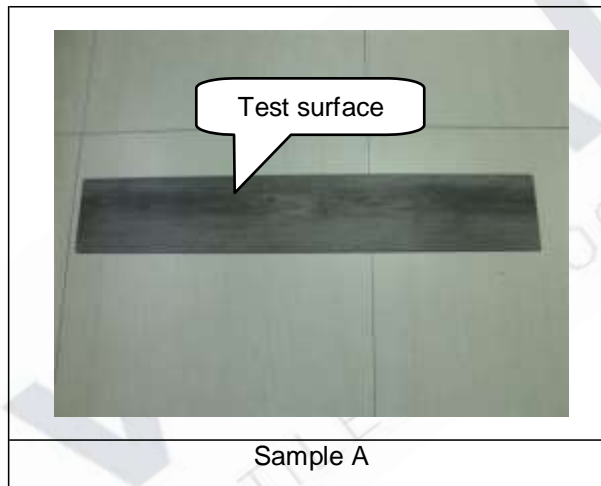
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Summary of Results:

No.	Test Item	Test Method	Result
1	Fire classification for burning behavior of flooring material	EN 13501-1-2018 Clause 9 & EN ISO 9239-1:2010 & EN ISO 11925-2:2010, Cor.1:2011	B _{fl} - s1

Original Sample Photo:



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



SGS-CSTC (China) Technical Services Co., Ltd.
Xiamen Branch Testing Center, Xiamen, Fujian Province, China

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Test item: Fire classification for burning behavior of flooring material

Sample Description: Floor

Test Method: EN 13501-1:2018 Clause 9 & EN ISO 9239-1:2010 & EN ISO 11925-2:2010, Cor.1:2011

Test result:

I. EN ISO 9239-1:2010 Reaction to fire tests for floorings-Part 1: Determination of the burning behaviour

using a radiant heat source

Specimen: 1050mm x 230mm x 4.7 mm

Flame application time: 10min

Mounting and fixing: Calcium silicate board, with its density about 1016kg/m³, thickness about 21.4mm, is as the substrate. The specimens were fixed mechanically to the substrate.

Specimen No.	Furthest extent of spread of flame, mm	Critical heat flux (CHF) , kW/m ²	Integrated smoke value , %-min
1	70	> 11	336.64
2	50	> 11	237.42
3	40	> 11	166.37
Average	53	/	246.8

Note:

1. Test specimens were cut from the sample.
2. Specimens that do not ignite or which spread flame less than 110 mm have a critical heat flux $\geq 11\text{kW/m}^2$

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



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II. EN ISO 11925-2:2010, Cor.1:2011 Reaction to fire tests-Ignitability of building products subjected to direct impingement of flame-Part 2: Single-flame source test.

Specimen: 250mm × 90mm × 4.7 mm

Flame application time: 15s

Exposure conditions	Edge exposure			Surface exposure		
	1	2	3	1	2	3
Specimen No.						
Whether ignition occurs	Yes	Yes	Yes	No	No	No
Whether the flame tip reaches 150 mm above the flame application point within 20s	No	No	No	No	No	No
Whether ignition of the filter paper occurs	No	No	No	No	No	No

Note: Specimens were cut from sample.

Conclusion:

According to the test result and classification criteria (See table 1), the submitted sample satisfies Class B_{fl}
Reaction to fire classification: B_{fl} - s1

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.

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

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



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Table 1. Classes of reaction to fire performance for floorings

Class	Test method(s)	Classification criteria	Additional classification
A1 _{fl}	EN ISO 1182 ^a and	$\Delta T \leq 30 \text{ }^\circ\text{C}$; and $\Delta m \leq 50 \%$; and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$PCS \leq 2,0 \text{ MJ/kg}^a$ and $PCS \leq 2,0 \text{ MJ/kg}^b$ and $PCS \leq 1,4 \text{ MJ/m}^2^c$ and $PCS \leq 2,0 \text{ MJ/kg}^d$	-
A2 _{fl}	EN ISO 1182 ^a or	$\Delta T \leq 50 \text{ }^\circ\text{C}$ and $\Delta m \leq 50 \%$ and $t_f \leq 20 \text{ s}$	-
	EN ISO 1716 and	$PCS \leq 3,0 \text{ MJ/kg}^a$ and $PCS \leq 4,0 \text{ MJ/m}^2^b$ and $PCS \leq 4,0 \text{ MJ/m}^2^c$ and $PCS \leq 3,0 \text{ MJ/kg}^d$	-
	EN ISO 9239-1 ^e	Critical flux ^f $\geq 8,0 \text{ kW/m}^2$	Smoke production ^g
B _{fl}	EN ISO 9239-1 ^e and	Critical flux ^f $\geq 8,0 \text{ kW/m}^2$	Smoke production ^g
	EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-
C _{fl}	EN ISO 9239-1 ^e and	Critical flux ^f $\geq 4,5 \text{ kW/m}^2$	Smoke production ^g
	EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-
D _{fl}	EN ISO 9239-1 ^e and	Critical flux ^f $\geq 3,0 \text{ kW/m}^2$	Smoke production ^g
	EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-
E _{fl}	EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ 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 $\leq 750 \%$ 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*****



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Test Photo:

	
<p>During test- Radiant heat source</p>	<p>After test- Radiant heat source</p>
	
<p>During test- Ignitability- Edge exposure</p>	<p>After test- Ignitability- Edge exposure</p>
	
<p>During test- Ignitability- Surface exposure</p>	<p>After test- Ignitability- Surface exposure</p>

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



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