

Test Report

No.: SHHL1905026139OT

Date: JUN. 14, 2019

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CHANGZHOU LAMICRAFT CONSTRUCTIONS CO.,LTD

TONGJIANG AVENUE N391-ROOM C502, XINBEI DISTRICT, CHANGZHOU, JIANGSU,CHINA

Sample Description : SPC FLOORING (THICKNESS:3.2MM-5.0MM)
Style No. : 8036
Item No. : 8036
Country of Origin : CHINA

Sample Receiving Date : MAY 23, 2019
Testing Period : MAY 23, 2019 TO JUN. 14, 2019
Test Performed : SELECTED TEST(S) AS REQUESTED BY APPLICANT
Test Requested : SELECTED TEST(S) AS REQUESTED BY APPLICANT
Test Result(s) : FOR FURTHER DETAILS, PLEASE REFER TO THE
FOLLOWING PAGE(S)
Conclusion : THE TEST DATA WERE PROVIDED TO CLIENT FOR
THEIR OWN ANALYSIS.

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.



SHHL1905026139OT

Melody Zhang
Authorized Signatory



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Test Conducted:

Summary of Result(s):

No.	Test Item	Test Method	Result	Conclusion
1	Thermal conductivity	EN 12664:2001 Heat flow meter method	0.078W/(m·K)	/
	Thermal resistance		0.040(m ² ·K)/W	
2	Dynamic coefficient of friction	EN 13893:2002	See Result	/

Note: Pass: Meet the requirements;
 Fail: Does not meet the requirements;
 /: Not Apply to the judgment.

Original Sample Photo(s):



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1. Test item: Thermal conductivity and thermal resistance

Test method: EN 12664:2001 Heat flow meter method

Test condition:

Specimen: 305mm×302mm×4mm, 1pc

Density: about 2007kg/m³

Mean temperature: 23°C

Temperature difference: 10°C

Lab environmental condition: 23±2°C, 50±5%RH

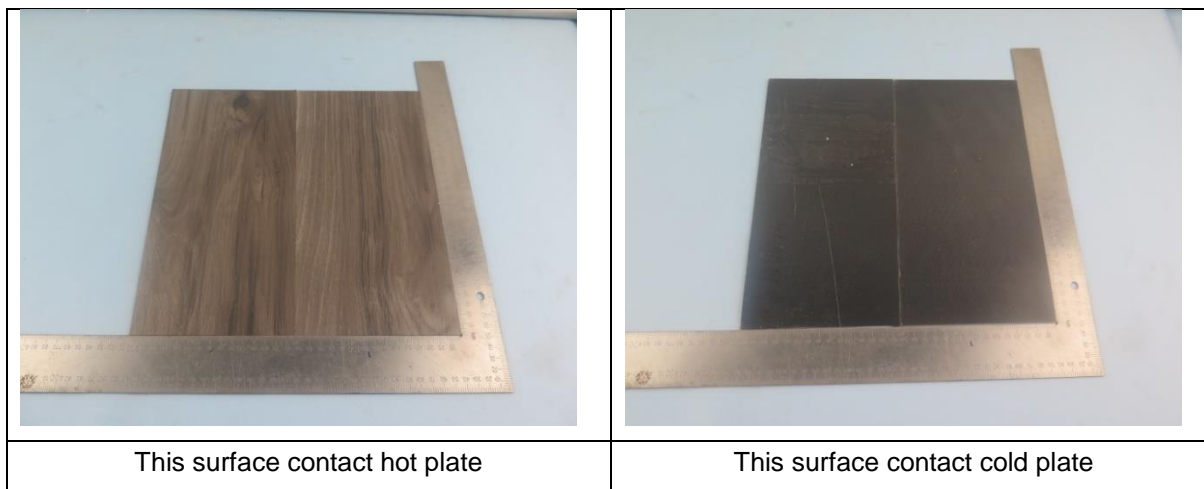
Test result:

Test Item	Test Result
Thermal conductivity	0.078W/(m·K)
Thermal resistance	0.040(m ² ·K)/W

Note:

- The test result cannot be compared with other results obtained from different test conditions and should not be cited to the use condition directly.
- Test specimen was cut from original sample and jointed by two pieces.

Test specimen photos:



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2. Test item: Dynamic coefficient of friction

Test Method:

EN 13893:2002 Resilient, laminate and textile floor coverings-Measurement of dynamic coefficient of friction on dry floor surfaces.

Test condition:

Specimen dimension: 1225mm×188mm

Testing surface: front side

Testing speed: 0.20m/s

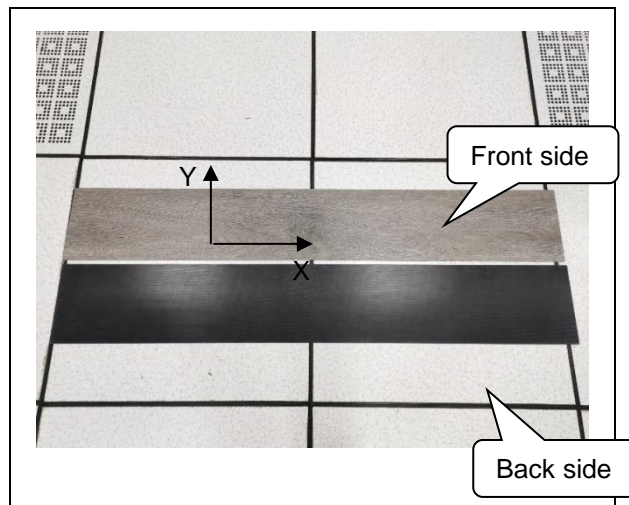
Test Result:

Dynamic coefficient of friction:

X Direction: 0.38

Y Direction: 0.42

Specimen photograph:



Note: Test items 2 were performed by SGS-CSTC Standards Technical Services Co., Ltd.

Xiamen Branch Testing Center.



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The testing was performed by SGS other internal laboratory

I. Test conducted

This test was 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+Cor1:2011 Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test.

II. Details of classified product

Sample description	PVC flooring
Color	Grey
Thickness	About 4.0mm

Mounting and fixing:

Calcium silicate board, with its density approximate 900kg/m³, thickness approximate 9mm, is as the substrate. The test specimens are fixed mechanically to the substrate. Have joints.

III. Test results

Test method	Parameter	Number of tests	Results
EN ISO 9239-1	Critical flux (kW/m ²)	3	10.1
	Smoke (%xminutes)		238.4
EN ISO 11925-2 Exposure = 15 s	$F_s \leq 150$ mm	6	Yes



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IV. Classification and direct field of application

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

a) Classification

The product, PVC flooring, classification is as following,

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

Reaction to fire classification: B_{fl}—s1

Remark: The classes with their corresponding fire performance are given in annex A.

b) Field of application

This classification for the submitted sample is valid for the following end use condition:

- With all substrates classified as A1 and A2
- With mechanically fixing
- Have joints.

This classification is valid for the following product parameters:

- Characteristics as described in § II of this test report.

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.

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.



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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.

Annex A

Classes of reaction to fire performance for floorings

class	Test methods	Classification	Additional classification
A1 _{fl}	EN ISO 1182 ^a and	$\Delta T \leq 30^{\circ}\text{C}$, and $\Delta m \leq 50\%$, and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$\text{PCS} \leq 2.0\text{MJ/kg}^a$ and $\text{PCS} \leq 2.0\text{MJ/kg}^b$ and $\text{PCS} \leq 1.4\text{MJ/m}^2^c$ and $\text{PCS} \leq 2.0\text{MJ/kg}^d$	-
A2 _{fl}	EN ISO 1182 ^a or	$\Delta T \leq 50^{\circ}\text{C}$, and $\Delta m \leq 50\%$, and $t_f \leq 20\text{s}$	-
	EN ISO 1716		-
	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 = 15s	$F_s \leq 150\text{mm}$ 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 = 15s	$F_s \leq 150\text{mm}$ 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 = 15s	$F_s \leq 150\text{mm}$ within 20 s	-
E _{fl}	EN ISO 11925-2 ^h Exposure = 15s	$F_s \leq 150\text{mm}$ within 20 s	-
F _{fl}	No performance determined		



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- ^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.

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2. The declaration of conformity is only based on the actual value of laboratory activity, measurement uncertainty of the results not take into account.



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Sample Photo:



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