TEST REPORT

Report No. : MAN:HL:1548001110 **ISSUE DATE: 21-Mar-2024**

FLORIM GLOBAL PVT. LTD.
THE SPIRE, OFFICE NO. 809, 150 FT,
RING ROAD, NEAR BRTS BUS STOP,
RAJKOT, GUJARAT- 360004
INDIA
CONTACT PERSON: HARSHIL SANTOKI

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS :
SAMPLE DESCRIPTION SPC CLICK LOCK VINYL FLOORING
COLOUR OAK AND GREY NATURAL WOOD
STYLE NO. RANDOM WOOD GRAIN EMBOSSED SPC FLOORING

LAB PROVIDED DETAILS:
CONDITION OF SAMPLE COMPLETE AND OK
THE LOCATION OF PERFORMANCE OF THE LABORATORY ACTIVITIES: SGS CHINA LABORATORY
SAMPLE RECD ON 08-Feb-2024 **TESTING PERIOD :** 16-Feb-2024 - 21-Mar-2024

SUMMARY OF TEST RESULTS:

TESTS	PASS	FAIL	REMARKS
THERMAL CONDUCTIVITY AND THERMAL RESISTANCE			**SEE RESULT**
FIRE CLASSIFICATION FOR BURNING BEHAVIOR OF FLOORING MATERIAL			**SEE RESULT**
FORMALDEHYDE EMISSION			**SEE RESULT**

Remarks: **P=Pass**

F=Fail

TEST(S) RESULT & METHOD: PLEASE REFER TO NEXT PAGE(S). RESULTS APPLY TO THE SAMPLE AS RECEIVED

Per Pro SGS India Pvt. Ltd.

SANDIP BHUSHAN
TECHNICAL MANAGER
Authorized Signatory-Mechanical
Email your Test Report Related Enquiries at Feedback.HLT@sgs.com

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NON ACCREDITED TEST(S)

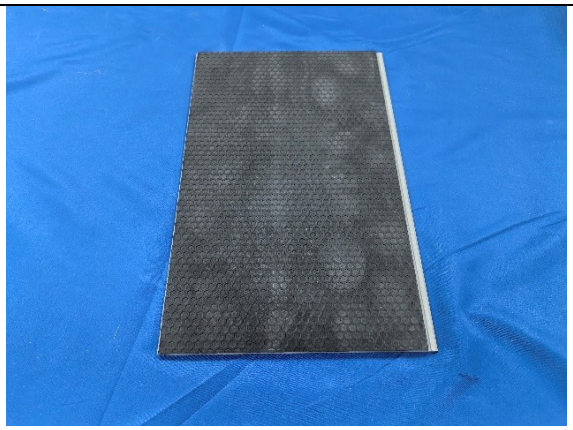
TEST RESULT:-

Summary of Results:

No.	Test Item	Test Method	Result
1	Thermal Conductivity and Thermal Resistance	EN 12664:2001 Heat Flow Meter Method	See Result
2	Fire Classification for Burning Behavior of Flooring Material	EN 13501-1:2018 & EN ISO 9239-1:2010 & EN ISO 11925-2:2020	B_{fl}—s1

Note: The above test project/method was carried out by subcontractors. Original Sample Photo(s):

Front View



Back View

NON ACCREDITED TEST(S)

1. Test Item: Thermal Conductivity and Thermal Resistance

Test Method: EN 12664:2001 Heat Flow Meter Method

Test Condition:

Specimen: 300mm×299mm×5.0mm, 1pc

Density: about 1639kg/m^3

Mean temperature: 23℃

Temperature difference: 10℃

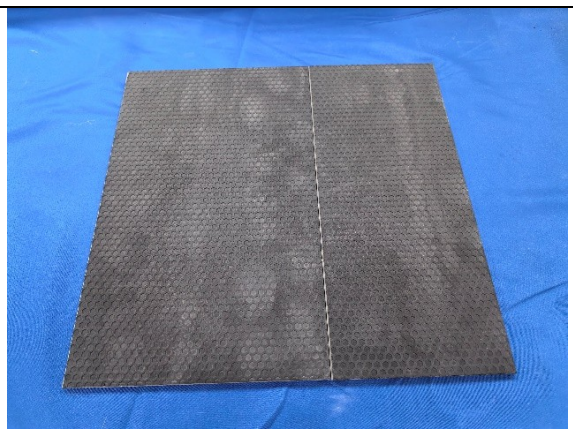
Lab Environmental Condition: (23±2)℃, (50±5)%RH Test Result:

Test Item	Test Result
Thermal Conductivity	0.107 W/(m·K)
Thermal Resistance	0.047 (m^2·K)/W

Note:

1. The test result can not be compared with other results obtained from different test conditions, and should not be cited to the use condition directly.
2. Test specimen was jointed by two pieces.

Specimen Photo(s):



NON ACCREDITED TEST(S)

2. Test item: Fire Classification for Burning Behavior of Flooring Material

Test Method: EN 13501-1:2018 & EN ISO 9239-1:2010 & EN ISO 11925-2:2020

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 × 230mm × 5.0 mm (make up of 2 pieces sample) Flame application time: 10min

Mounting and fixing: Calcium silicate board, with its density about 1016kg/m^3, 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	50	≥11	185.3
2	40	≥11	174.1
3	50	≥11	180.6
Average	47	≥11	180.0

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 ≥ 11kW/m^2.
3. Observations of the burning characteristics: Charring.
4. The texture surface was faced to the flame.

NON ACCREDITED TEST(S)

I. EN ISO 11925-2:2020 Reaction to fire tests-Ignitability of products subjected to direct impingement of flame-Part 2: Single-flame source test.

Specimen: 250mm × 90mm × 5.0 mm

Flame application time: 15s

Exposure conditions	Edge exposure			Surface exposure		
Specimen No.	1	2	3	1	2	3
Whether ignition occurs	No	No	No	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:

1. Test specimens were cut from the sample.
2. Observations of the burning characteristics: Charring.
3. The texture surface was faced to the flame.
4. Result: 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 Client's Requirement:

B_{fl}—s1 Conclusion: Pass

NON ACCREDITED TEST(S)

Statement: The test results relate to the behavior 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.

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	$\Delta T \leq 30$ °C; and $\Delta m \leq 50$ %; and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	PCS ≤ 2,0 MJ/kg [a] and PCS ≤ 2,0 MJ/kg [b] and PCS ≤ 1,4 MJ/m^2 [c] and PCS ≤ 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 ≤ 3,0 MJ/kg [a] and PCS ≤ 4,0 MJ/m^2 [b] and PCS ≤ 4,0 MJ/m^2 [c] and PCS ≤ 3,0 MJ/kg [d]	-
	EN ISO 9239-1 [e]	Critical flux [f] ≥ 8,0 kW/m^2	Smoke production [g]
B_{fl}	EN ISO 9239-1 [e] and	Critical flux [f] ≥ 8,0 kW/m^2	Smoke production [g]
	EN ISO 11925-2 [h]: Exposure = 15 s	Fs ≤ 150 mm within 20 s	-

NON ACCREDITED TEST(S)

Class	Test method(s)	Classification criteria	Additional classification
C_{fl}	EN ISO 9239-1 [e] And	Critical flux [f] ≥ 4,5 kW/m^2	Smoke production [g]
	EN ISO 11925-2 [h]: Exposure = 15 s	*F*s ≤ 150 mm within 20 s	
D_{fl}	EN ISO 9239-1 [e] and	Critical flux [f] ≥ 3.0 kW/m^2	Smoke production [g]
	EN ISO 11925-2 [h]: Exposure = 15 s	*F*s ≤ 150 mm within 20 s	
E_{fl}	EN ISO 11925-2 [h]: Exposure = 15 s	*F*s ≤ 150 mm within 20 s	-
F_{fl}	EN ISO 11925-2 [h]: Exposure = 15 s	*F*s ＞150 mm within 20 s	-

[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).

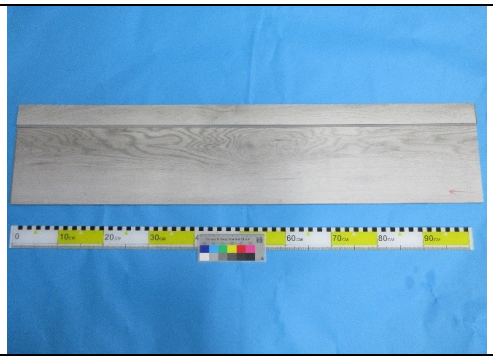
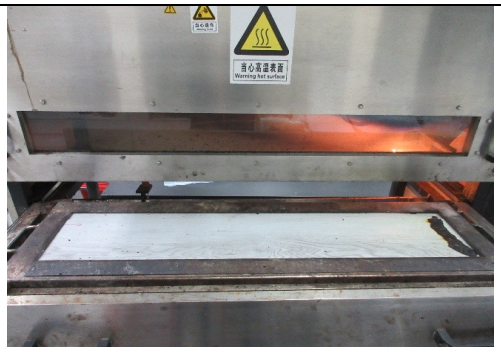
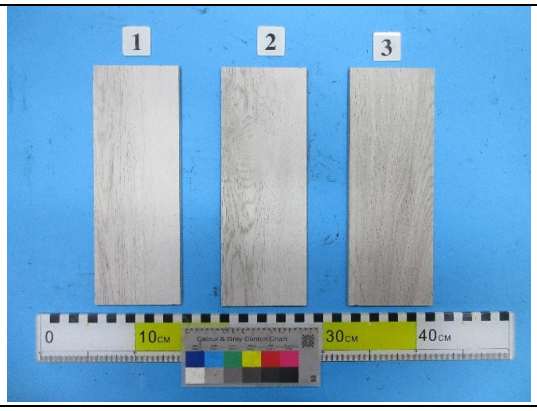
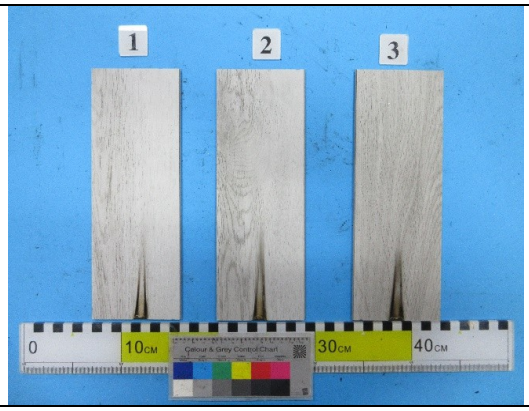
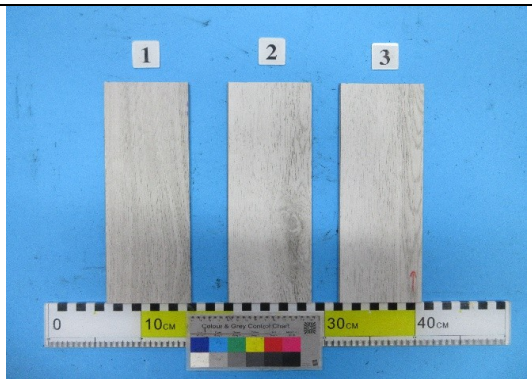
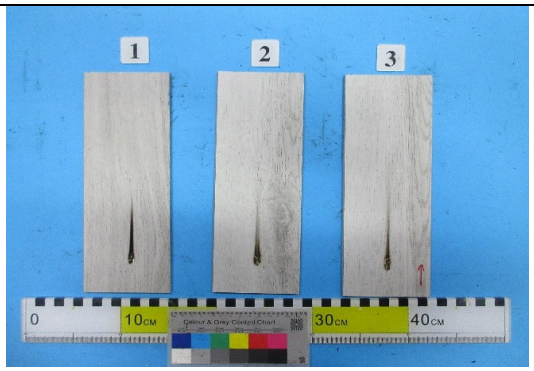
[g] s1 = Smoke ≤ 750 % minutes; s2 = not s1.

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

Note :

- Test has been sub-contracted to ISO/IEC 17025 accredited laboratory.
- Above all testing has been performed as per customer request.

Test Photo:

	
Before test- Radiant heat source-Sample A	After test- Radiant heat source-Sample A
	
Before test-Ignitability-Edge exposure-Sample A	After test- Ignitability- Edge exposure-Sample A
	
Before test-Ignitability- Surface exposure -Sample A	After test- Ignitability- Surface exposure -Sample A

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NON ACCREDITED TEST(S)

FORMALDEHYDE EMISSION:-

Test Method: With reference to EN 717-1:2004, analysis was performed by UV-Vis.

Test Item(s)	Unit(s)	MDL	Result
Formaldehyde	mg/m³	0.050	ND

Notes:

(1) Reference Limit: EN13986:2004(E)

(2) Formaldehyde class E1: ≤0.124 mg/m^3 air

Formaldehyde class E2: ＞0.124 mg/m^3 air

Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement forSimple Acceptance Rule (*w*=0) stated in ILAC-G8:09/2019.

Remarks:

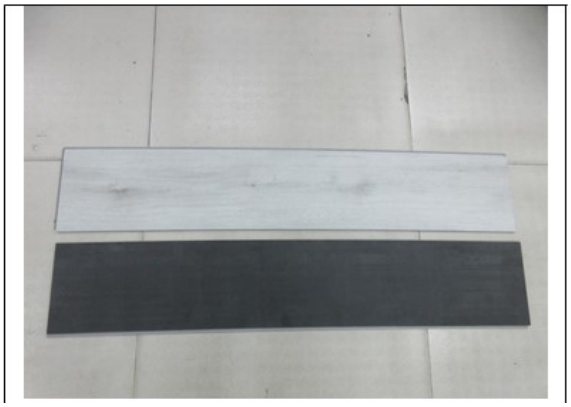
(1) 1 mg/kg = 1 ppm = 0.0001%

(2) MDL = Method Detection Limit

(3) ND = Not Detected (< MDL)

(4) "-" = Not Regulated

(5) The above test project/method was carried out by subcontractors.



*****END OF REPORT*****

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