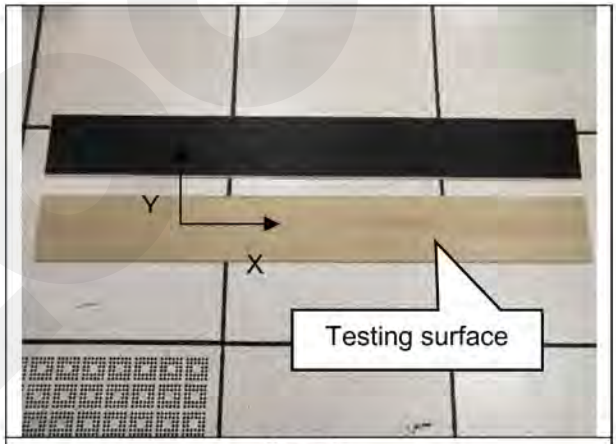
TEST REPORT

Summary of Results:

No.	Test Item	Test Method	Result
1	Dimensional Stability and Curling	Refer to ASTM F2199-20	See the following
2	Dynamic Coefficient of Friction	ANSI/NFSI B101.3-2012	Wet DCOF Value(μD): 0.44
3	Static coefficient of friction	ASTM D2047-17	Dry condition: 0.67
4	Abrasion Resistance	Refer to ASTM D4060-19 and client's requirements	See results
5	Critical radiant flux*	ASTM E648-19a$^{\epsilon 1}$	Met the requirement of Class Ⅰ
6	Smoke density*	ASTM E 662-19	See the following
7	Total Lead & Soluble heavy metal*	ASTM F963-17	ND

Note: * test project/method was carried out by subcontractors.

Original Sample Photo:



Sample

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TEST REPORT

1.Test Item: Dimensional Stability and Curling

Sample Description: See photo

Test Method: Refer to ASTM F2199-20

Test Condition:

Specimen: 305mm×182mm×5.0mm, 3pcs

Condition: (23±2)℃, (50±5)%RH, 24h →0℃, (6±0.25)h→(23±2)℃, (50±5)%RH, 24h

Lab Environment Condition: (23±2)℃, (50±5)%RH

Test Result:

Dimensional stability of X direction: -0.01%

Dimensional stability of Y direction: -0.01%

Curling $_{value}$: 0.05mm

Curling $_{max}$: 0.08mm

Note: 1. All test specimens were cut from the original samples.

2. Dimensional stability, % = (The average final length – The average initial length)/The average initial length ×100.

3. Curling, mm = Dimension after exposure to heat - Dimension before exposure to heat.

2. Test Item: Dynamic coefficient of friction

Sample Description: see photo

Test Method: ANSI/NFSI B101.3-2012

Test Condition:

Specimen: 400mm×167mm, 3pcs, cut from original samples

Test solution: 0.1% SLS (sodium lauryl sulfate aqueous solution)

Testing surface: see photo

Test result:

Wet DCOF Value(μD): 0.44

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3. Test Item: Static coefficient of friction

Sample Description: Flooring, See photo

Test Method: ASTM D2047-17

Test Condition:

Specimen: 300mm×167mm, 3pcs, cut from original samples, see photo

Test shoe material: Leather

Test speed: 1524mm/min

Testing surface: see photo

Test result:

Dry condition: 0.67

4. Test Item: Abrasion Resistance

Sample Description: See photo

Test Method: Refer to ASTM D4060-19 and client's requirements

Test Condition:

Wheel: H-18

Load: 1000g/wheel (total 2000g)

Cycles: 3000r

Test Result:

Specimen No.	Weight loss after 3000r (mg)	Abrasion index (mg/1000r)
1	361.2	120.4
2	378.2	126.1

Specimen No.	Thickness loss(mm)					
	500r	1000r	1500r	2000r	2500r	3000r
1	0.060	0.075	0.101	0.120	0.133	0.151
2	0.047	0.063	0.080	0.098	0.122	0.157

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5. Test Item: Critical radiant flux

Sample Description: See photo

Test Method: ASTM E648-19a$^{\epsilon 1}$

Test condition:

Specimen: 1050mm×230mm×5.0mm

Flame application time: 5min

Test result:

Specimen No.	Furthest extent of spread of flame, mm	Critical heat flux, watts/cm^2
1	32	＞1.0
2	30	＞1.0
3	38	＞1.0
Average	33	＞1.0

Note:

1. Test specimens were cut from sample.

2.The wood grain surface was the exposed surface.

3. Specimens that do not ignite or which spread flame less than 100 mm have a critical heat flux ≥ 1.0 W/cm^2.

4. ASTM E648-19a$^{\epsilon 1}$ is solely a test procedure and, as such, has no specific pass/fail criteria of its own. Table 1 specification criteria are cited for reference purposes only and may or may not apply to this tested product. International Building Code, Chapter 8, Interior Finishes, Section 804 “INTERIOR FLOOR FINISH”, was classified in accordance with ASTM E648-19a$^{\epsilon 1}$ or NFPA 253. Such interior finish materials shall be grouped in table 1 classes in accordance with their critical heat flux ratings. The classifications are as follows:

Ratings	Class Ⅰ	Class Ⅱ
Critical heat flux, watts/cm^2	≥0.45	≥0.22

Classification: Met the requirement of Class Ⅰ

Client's Requirement: Class Ⅰ

Conclusion: Pass

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TEST REPORT

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.

Test Photo:

<table>
<tr><td colspan="2"> </td></tr>
<tr><td colspan="2">During test</td></tr>
<tr><td> </td><td> </td></tr>
<tr><td>Before test</td><td>After test</td></tr>
</table>

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TEST REPORT

6. Test Item: Smoke density

Sample Description: See photo

Test Method: ASTM E 662-19 Specific optical density of smoke generated by solid materials

I. Sample Description and Conditioning

Color:	Face: Yellow, Back: Black
Thickness:	About 5.0 mm
Tested face:	Wood grain surface
Precondition:	Oven: Temperature: (60±3)℃; Duration: 24hours
	Conditioner: (23±3)℃; Relative Humidity: (50±5)%; Duration: 72h Remark: Test specimens shall be conditioned before testing, until constant mass is achieved.

II. Test Result

Mode 1: Under Non-flaming Exposure

Measurement or Observation		Specimen 1	Specimen 2	Specimen 3	Average Value
Weight(g)		45.3	45.0	45.6	45.3
D_m, maximum specific optical density/occurrence time(min:s)	:	188.11	224.55	198.28	203.65
		13:40	13:42	14:51	
D_m(corr)	:	175.35	212.04	181.72	189.70
$Ds_{1.5}$ (Specific optical density at 1.5 minutes)	:	2.72	1.75	2.22	2.23
Ds_4 (Specific optical density at 4 minutes)	:	50.25	50.75	37.70	46.23
Burning characteristics /occurrence time(min:s)	:	Intumescence	Intumescence	Intumescence	---
		09:16	10:31	09:44	
Smoke-generating properties	:	Grey smoke			---

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TEST REPORT

Mode 2: Under Flaming Exposure

Measurement or Observation		Specimen 1	Specimen 2	Specimen 3	Average Value
Weight(g)		44.0	43.5	43.2	43.6
D_m, maximum specific optical density/occurrence time(min:s)	:	395.35	297.31	409.84	367.50
		06:18	04:58	08:24	
D_m(corr)	:	387.65	289.79	404.28	360.57
$Ds_{1.5}$ (Specific optical density at 1.5 minutes)	:	89.68	97.15	75.42	87.42
Ds_4 (Specific optical density at 4 minutes)	:	285.60	273.10	265.20	274.63
Burning characteristics /occurrence time(min:s)	:	Intumescence	Intumescence	Intumescence	---
		04:33	04:51	04:38	
Smoke-generating properties	:	Grey smoke			---

Statements:

These results relate only to the behaviour of the specimens of the product under the particular conditions of test; they are not intended to be the sole criterion for assessing the potential smoke obscuration hazard of the product in use.

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TEST REPORT

7. Test Item: Total Lead & Soluble heavy metal

Sample Description: See photo, Gray board w/ brown surface & black backing

Notes:

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

(2) MDL = Method Detection Limit

(3) ND = Not Detected (< MDL)

(4) "-" = Not Regulated

(5) Results shown are of the adjusted analytical results.

American Society for Testing and Materials -ASTM F963-17(Clause 4.3.5) - total Lead in Substrate Materials

Test Method: With reference to CPSC-CH-E1002-08.3. Analysis was performed by ICP-OES.

Test Item(s)	Limit	Unit	MDL	*001*
Total Lead (Pb)	100	mg/kg	20	ND

American Society for Testing and Materials-ASTM F963-17(Clause 4.3.5) -soluble heavy metal in Substrate Materials/paint and similar surface-coating materials

Test Method: With reference to ASTM F963-17(Clause 8.3), analysis was performed by ICP-OES.

Test Item(s)	Limit	Unit	MDL	*001*
Soluble Lead (Pb)	90	mg/kg	5	ND
Soluble Antimony (Sb)	60	mg/kg	5	ND
Soluble Arsenic (As)	25	mg/kg	2.5	ND
Soluble Barium (Ba)	1,000	mg/kg	10	ND
Soluble Cadmium (Cd)	75	mg/kg	5	ND
Soluble Chromium (Cr)	60	mg/kg	5	ND
Soluble Mercury (Hg)	60	mg/kg	5	ND
Soluble Selenium (Se)	500	mg/kg	10	ND

Note: The test results were transferred from report No.: XMIN2102001294CM dated: Jul 23, 2021 issued by SGS.

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

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