

BODO Plastics Co.,Ltd.

TEST REPORT

SCOPE OF WORK

WPC Flooring

REPORT NUMBER

221028009SHF-003

TEST DATE(S)

2022-10-28 - 2022-11-22

ISSUE DATE

2022-11-22

PAGES

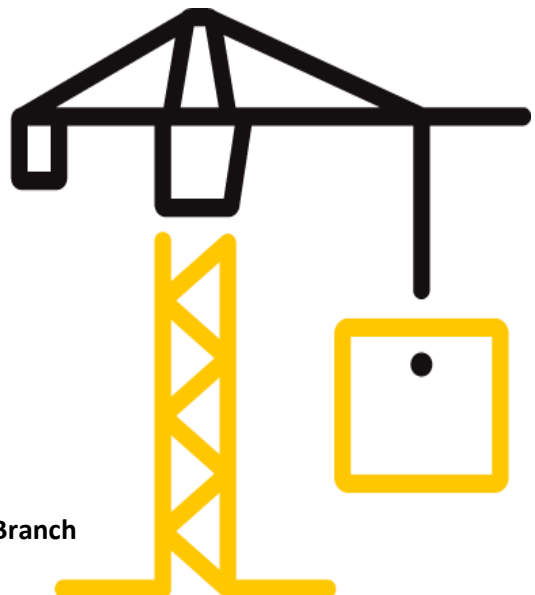
12

DOCUMENT CONTROL NUMBER

LFT-APAC-SHF-OP-10k(September 1, 2022)

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



Test Report

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Test Report

Issue Date: 2022-11-22 Intertek Report No. 221028009SHF-003
Applicant: BODO Plastics Co.,Ltd.
Address: Economic Development Zone, Yi yuan County, Zibo City, Shandong Province
Attn: Jian Ma
Manufacturer: BODO Plastics Co.,Ltd.
Address: Economic Development Zone, Yi yuan County, Zibo City, Shandong Province
Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	WPC Flooring	Brand	BODO
Sample Description	Good Condition	Sample Amount	13pcs
		Received Date	2022-10-26
Sample ID	Model	Specification	
S221028009SHF.014~017,023~025	BTWF-001	1524mm*180mm*9.5mm	

Test Methods And Standards

Test Standard	ASTM F2055-17(2021), ASTM F386-17(2022), ASTM F410-08(2022), ASTM D903-98(2017), With reference to F963-17, With reference to CPSC-CH-C1001-09.4.
Specification Standard	ASTM F1700-20
Test Conclusion	The samples were tested according to the above standards, and the results are shown in the following page.

Note:

1.This report does not involve sampling. The report only reflects conformity of the tested items of the samples provided by the testing applicant. Representativeness and authenticity of the submitted samples are responsibilities of the testing applicant.

Report Authorized


Name: Daniel Zhang Title: Reviewer
Name: Aaron Cai Title: Project Engineer

Test Report

Issue Date: 2022-11-22

Intertek Report No. 221028009SHF-003

Test Items, Method and Results:

ASTM F1700-20 Standard Specification for Solid Vinyl Floor Tile

Physical Requirements:

Characteristics	Test requirements	Test Method	Verdict
Size, tolerance	A tolerance of $\pm 0.4\text{mm}/305\text{mm}$	ASTM F2055-17(2021)	Pass
Thickness, product	A tolerance of $\pm 0.13\text{mm}$	ASTM F386-17(2022)	Pass
Thickness, wear layer	Commercial, 0.5mm min	ASTM F410-08(2022)	Pass
Squareness	$\leq 0.25\text{mm}$	ASTM F2055-17(2021)	Pass

Note:

1. N/A = Not applicable for this characteristic.
2. Detailed test results see page 5-8.
3. Test items were selected by applicant.

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Test Items, Method and Results:

Test Item: Size

Test Method: ASTM F2055-17(2021)

Conditioning: Condition the test specimens at $(23 \pm 2)^{\circ}\text{C}$ and $(50 \pm 5)\%$ relative humidity for at least 24h

Test Result:

Test item	Nominal value (mm)	Tested value (mm)	Tolerance (mm)
Length	1524	1524.3	0.3
Width	180	179.98	-0.02

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Test Items, Method and Results:

Test Item: Thickness

Test Method: ASTM F386-17(2022)

Conditioning: Condition the test specimens at $(23 \pm 2)^{\circ}\text{C}$ and $(50 \pm 5)\%$ relative humidity for at least 24h

Test Condition:

Foot diameter of thickness gage: 6.35 mm

Mass applied: 420 g

Test Result:

Nominal value: 9.5 mm

Average value: 9.59 mm

Tolerance: 0.09 mm

Max. value: 9.60 mm

Min. value: 9.57 mm

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Test Items, Method and Results:

Test Item: Wear layer thickness

Test Method: ASTM F410-08(2022)

Conditioning: Condition the test specimens at $(23 \pm 2)^{\circ}\text{C}$ and $(50 \pm 5)\%$ relative humidity for at least 24h

Test Result:

Nominal value:	/	mm
Average value:	0.51	mm
Max. value:	0.52	mm
Min. value:	0.50	mm

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Issue Date: 2022-11-22

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Test Items, Method and Results:

Test Item: Squareness

Test Method: ASTM F2055-17(2021)

Conditioning: Condition the test specimens at $(23 \pm 2)^{\circ}\text{C}$ and $(50 \pm 5)\%$ relative humidity for at least 24h

Test Result:

Short edge max. value: 0.03 mm

Long edge max. value: 0.04 mm

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Issue Date: 2022-11-22

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Test Items, Method and Results:

Test Item: Peel Strength

Test Method: ASTM D903-98(2017)

Conditioning: Condition the test specimens at (23±1)°C and (50±2)% relative humidity for at least 7 days

Test Condition:

Test Speed: 152.4 mm/min

Test Result:

Test Items	Test Results
Peel Strength	Length direction/Machine direction
	mean value: 0.35kg/mm
	Width direction/Across machine direction
	mean value: 0.35kg/mm

Note:

1. Finish product was provided by client, peel strength of wear layer and substrate was tested.

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Test Items, Method and Results:

Test Item: Soluble elements analysis in non-surface coating materials

Test Method: With reference to section 4.3.5.2(2)(b) of the ASTM standard consumer safety specification on toy safety F963-17, acid extraction method was used and heavy metal elements migration content were determined by Inductively Coupled Argon Plasma Spectrometry.

Test Item	Test Result (ppm)	Detection Limit (ppm)	Limit in ASTM F963 (ppm)
Soluble Barium (Ba)	ND	5	1000
Soluble Lead (Pb)	ND	5	90
Soluble Cadmium (Cd)	ND	5	75
Soluble Antimony (Sb)	ND	5	60
Soluble Selenium (Se)	ND	5	500
Soluble Chromium (Cr)	ND	5	60
Soluble Mercury (Hg)	ND	5	60
Soluble Arsenic (As)	ND	2.5	25

Note:

1. ppm = parts per million = mg/kg
2. ND = Not detected (less than the detection limit)
3. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Shanghai
Address: 4-5/F., Block C, No.1218, Wanrong Road, Jing'an District, Shanghai.

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Issue Date: 2022-11-22

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Test Items, Method and Results:

Test Item: Phthalate Content Test

Test Method: With reference to CPSC-CH-C1001-09.4, by Gas Chromatography-Mass Spectrometry (GC-MS) analysis.

No.	Test Item	Cas No.	Test Result (mg/kg)
1	Di-butyl phthalate (DBP)	84-74-2	ND
2	Di(2-ethyl hexyl) phthalate (DEHP)	117-81-7	ND
3	Benzyl butyl phthalate (BBP)	85-68-7	ND
4	Di-iso-nonyl phthalate (DINP)	28553-12-0	ND
5	Di-n-octyl phthalate (DNOP)	117-84-0	ND
6	Di-iso-decyl phthalate (DIDP)	26761-40-0	ND
7	Di-iso-butyl phthalate (DIBP)	84-69-5	ND
8	Di-n-pentyl phthalate (DnPP/DPENP)	131-18-0	ND
9	Di-cyclohexyl phthalate (DCHP)	84-61-7	ND
10	Di-ethyl phthalate (DEP)	84-66-2	ND
11	Di-nonyl phthalate (DNP)	84-76-4	ND
12	Di-methyl phthalate (DMP)	131-11-3	ND
13	Di-propyl phthalate (DPrP)	131-16-8	ND
14	Di-(iso-octyl) phthalate (DIOP)	27554-26-3	ND
15	Diphenyl phthalate (DPhP)	84-62-8	ND
16	Dibenzyl phthalate (DBzP)	523-31-9	ND

Note:

1. Detection limit = 100 mg/kg
2. ND = Not detected (less than the detection limit)
3. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Shanghai
Address: 4-5/F., Block C, No.1218, Wanrong Road, Jing'an District, Shanghai.

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Appendix A: Sample Received Photo



Revision:

NO.	Date	Changes
221028009SHF-003	2022-11-22	First issue