Zhejiang Suntec Flor New Materials Co., Ltd

TEST REPORT

SCOPE OF WORK
SPC flooring

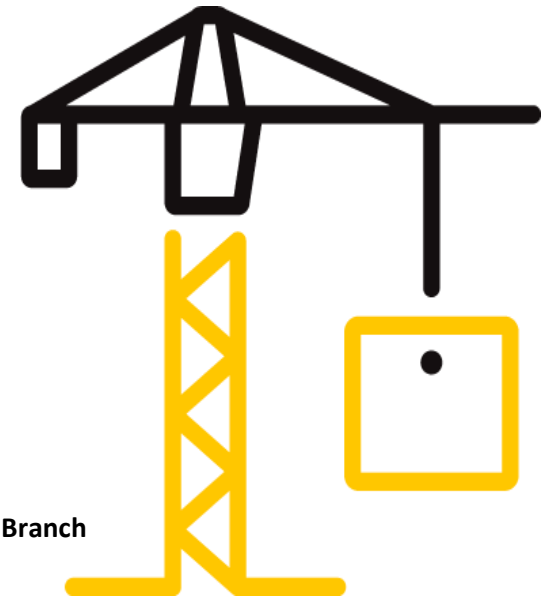
REPORT NUMBER
210510010SHF-001

TEST DATE(S)
2021-05-10 - 2021-05-26

ISSUE DATE
2021-06-07

PAGES
15

DOCUMENT CONTROL NUMBER
LFT-APAC-SHF-OP-10k(May 1, 2021)



Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch

Test Report

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Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch
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Tel: 021-61136116 Fax: 021-61189921
Website: www.intertek.com

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Applicant: Zhejiang Suntec Flor New Materials Co., Ltd

Address: 168 QiangHua West Road, Economic Development Zone,NanXun District, HuZhou City, Zhejiang Province, China

Attn: Huan Zhang

Manufacturer: Zhejiang Suntec Flor New Materials Co., Ltd

Address: 168 QiangHua West Road, Economic Development Zone,NanXun District, HuZhou City, Zhejiang Province, China

Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name	SPC flooring		**Brand**	Suntec
Sample Description	Good Condition		**Sample Amount**	35 pcs
			Received Date	2021-05-10
Sample ID		**Model**	**Specification**	
S210510010SHF.001~002, 004~009, 011		SPC5001	1220*180*6.5(5+1.5)mm	

Test Methods And Standards

Test Standard	ASTM F3261-20 section 7.2, 7.3.1, 7.3.2, 7.4, 7.5, 7.6, 7.7, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.8, ISO 24337:2019, ASTM F387-17, ASTM F1914-18, ASTM F2199-20, ASTM F925-13(2020), ASTM F1514-19, ASTM F1515-15
Specification Standard	ASTM F3261-20
Test Conclusion	The samples were tested according to the above standards, and the results are shown in the following page.

Note:
1.This report relates specifically to the sample(s) that were drawn and provided by the applicant or their nominated third party. The reported result(s) provide no warranty or verification on the sample(s) representing any specific goods and/or shipment and only relate to the sample(s) as received and tested.

Report Authorized

INTERTEK TESTING SERVICES SHENZHEN LTD. SHANGHAI FENGXIAN BRANCH 检验检测专用章

Sally Xie
Name: Sally Xie
Title: Approver

Flora Fan
Name: Flora Fan
Title: Reviewer

Jackie Zhou
Name: Jackie Zhou
Title: Project Engineer

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Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

ASTM F3261-20 Standard Specification for Resilient Flooring in Modular Format with Rigid Polymeric Core

Physical Requirements:

Characteristics		Test requirements	Test Method	Verdict
Size≤305mm		±0.40mm	ISO 24337:2019	Pass
305mm < Size≤457mm		±0.45mm		
457mm < Size < 610mm		±0.50mm		
610mm≤Plank length < 1220mm		±1.5mm		
Plank length≥1220mm		±2.0mm		
Squareness		≤0.25mm		Pass
Thickness, product without foam		±0.13mm	ASTM F387-17	N/A
Thickness, product with foam		±0.20mm	ASTM F387-17	Pass
Flatness	for width≤229mm	±0.2mm	ISO 24337:2019	Pass
	for other width	$f_{w,\ concave}$ ≤ 0.15%		
		$f_{w,\ convex}$ ≤ 0.2%		
	for length	$f_{l,\ concave}$ ≤ 0.15%		
		$f_{l,\ convex}$ ≤ 0.2%		
Openings		O_{avg} ≤ 0.1mm	ISO 24337:2019	Pass
		O_{max} ≤ 0.2mm		
Ledging		H_{avg} ≤ 0.1mm	ISO 24337:2019	Pass
		H_{max} ≤ 0.15mm		
Residual indentation		Average ≤ 0.18mm	ASTM F1914-18	Pass
Surface integrity		No puncture through wear layer/ décor into rigid core	ASTM F1914-18	Pass
Dimensional stability		Residential, (avg, max) ≤0.25%	ASTM F2199-20(70°C, 6h)	Pass
		Commercial, (max) ≤0.2%		
Curl		≤0.080in		Pass
Resistance to chemicals		No more than a slight change in surface dulling, surface attack or staining	ASTM F925-13(2020)	Pass
Resistance to heat		(avg, max) ΔE* < 8	ASTM F1514-19	Pass
Resistance to light		(avg, max) ΔE* < 8	ASTM F1515-15	Pass
Thickness Swell		max 2 % swell – no attached back max 5 % swell – with attached back	ASTM F3261-20	Pass

Note:

N/A = Not applicable for this characteristic

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Size

Test Method: ASTM F3261-20 section 7.2 and ISO 24337:2019

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

Test Result:

Test item	Nominal value (mm)	Tested value (mm)	Tolerance (mm)
Length	1220	1219.76	-0.24
Width	180	180.01	0.01

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Thickness

Test Method: ASTM F3261-20 section 7.3.1 and ASTM F387-17

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

Test Condition:

Foot diameter of thickness gage:	6.35	mm
Mass applied:	28	g
Product with foam back layer:	Yes	

Test Result:

Nominal value:	6.50	mm
Average value:	6.51	mm
Tolerance:	0.01	mm
Max. value:	6.54	mm
Min. value:	6.47	mm

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Squareness, Flatness, Openings, Ledging

Test Method: ASTM F3261-20 section 7.4, 7.5, 7.6, 7.7 and ISO 24337:2019

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

Test Result:

Test Item	Test Result
Squareness	S_{max} = 0.06 mm
Flatness	Maximum single values: $f_{w, concave}$ = 0.06 mm $f_{w, convex}$ = N/A mm Maximum single values: $f_{l, concave}$ = 0.01 % $f_{l, convex}$ = N/A %
Openings	O_{avg} = 0.05 mm O_{max} = 0.07 mm
Ledging	H_{avg} = 0.04 mm H_{max} = 0.06 mm

Note:

N/A = Not applicable for this characteristic

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Residual indentation

Test Method: ASTM F3261-20 section 8.1 and ASTM F1914-18

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

Test Condition:

Indenter:	Steel cylindrical foot	
Indenter diameter:	6.35	mm
Total load applied:	34	kg
Indentation time:	15	min
Recovery time:	60	min

Test Result:

Residual Indentation	Result (mm)
Specimen 1	0.09
Specimen 2	0.09
Specimen 3	0.08
Average value	0.09
Max. value	0.09

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Surface integrity

Test Method: ASTM F3261-20 section 8.2 and ASTM F1914-18

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

Test Condition:

Indenter:	Steel cylindrical foot	
Indenter diameter:	4.52	mm
Total load applied:	63.5	kg
Indentation time:	10	min

Test Result:

Specimen	Examination of surface integrity Puncture through wear layer/décor into rigid core (Yes or No)
1	No
2	No
3	No

Test photo:

Microscope examination after test

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Dimensional stability and curling

Test Method: ASTM F3261-20 section 8.3 and ASTM F2199-20

Conditioning:

Temperature:	23	°C
Relative humidity:	50	%
Duration:	24	h

Measure the initial length and curling

Test Condition:

Temperature:	70	°C
Duration:	6	h

Reconditioning:

Temperature:	23	°C
Relative humidity:	50	%
Duration:	24	h

Measure the final length and curling

Test Result:

Specimen	Dimensional stability (%)		Curling (in)
	Length direction/Machine direction	Width direction/Across machine direction	
1	-0.01	0.02	0.021
2	0.00	0.02	0.008
3	0.00	0.02	0.008
Average	0.00	0.02	0.012
Max.	-0.01	0.02	0.021

Note:

1. Dimensional stability = (final length - initial length)×100/initial length

A negative value indicates shrinkage, and a positive value indicates expansion.

2. Curling = final curling - initial curling = Curl

Express the average value to the nearest 0.001in

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Resistance to Chemicals

Test Method: ASTM F3261-20 section 8.4 and ASTM F925-13(2020)

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

Test Condition:

Duration of reagent contact: 60 min

Test Result:

Not affected

See below table for detailed test results

Detailed test results of Resistance to Chemicals

Reagent	Rating		
	Surface attack	Color change	Surface dulling
White vinegar (5% acetic acid)	0	0	0
Rubbing alcohol (70% isopropyl alcohol)	0	0	0
White mineral oil (medicinal grade)	0	0	0
Sodium hydroxide solution (5% NaOH)	0	0	0
Hydrochloric acid solution (5% HCl)	0	0	0
Sulfuric acid solution (5% H_2SO_4)	0	0	0
Household ammonia solution (5% NH_4OH)	0	0	0
Household bleach (5.25% NaOCl)	0	0	0
Olive oil (light)	0	0	0
Kerozene (K1)	0	0	0
Unleaded gasoline (regular grade)	0	0	0
Phenol (5% active phenol)	0	0	0

According to ASTM F925-13(2020), rating 0-3 represents:
0 = no change; 1 = slight change; 2 = moderate change; 3 = severe change.
Surface Dulling - Indicating that the specimen suffered from a loss of gloss,
Color Change - Indicating that the specimen suffered discoloration or bleaching, or both, and
Surface Attack - Indicating that the specimen suffered surface damage such as softening, warping, swelling, blistering, peeling, raised or rough area.

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Resistance to heat

Test Method: ASTM F3261-20 section 8.5 and ASTM F1514-19

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

Test Condition:

Temperature: 70 °C

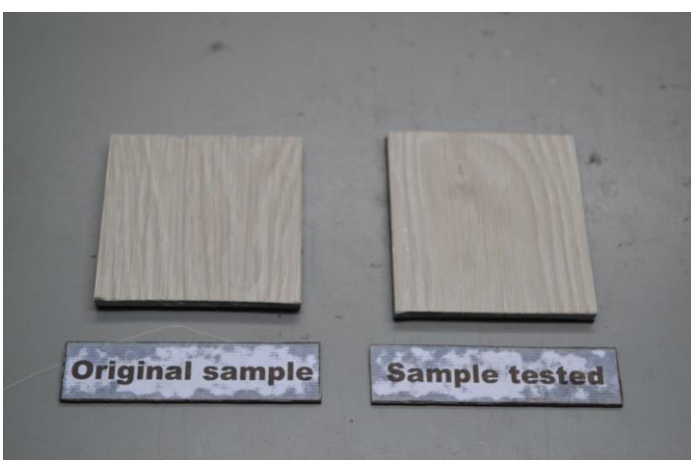
Exposure time: 7 days

Spectrophotometer: Under D65 standard light source, 10° observer

Test Result:

Specimen	ΔE*	Average ΔE*
1	0.57	0.79
2	0.92	
3	0.89	

Test Photo:



After exposure

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Resistance to light

Test Method: ASTM F3261-20 section 8.6 and ASTM F1515-15

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

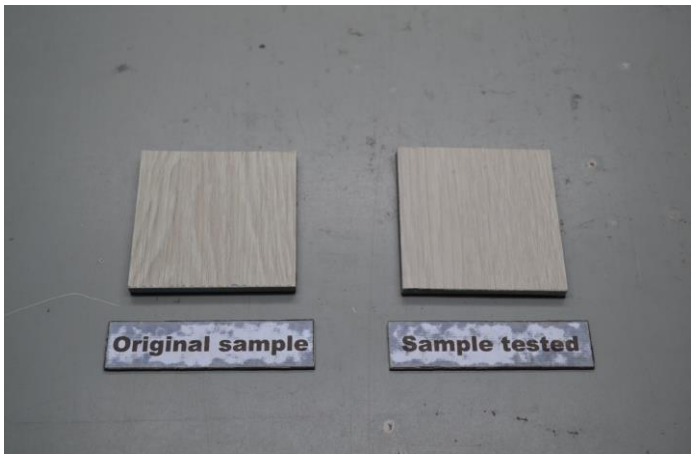
Test Condition:

Light source:	Xenon-arc lamps		
Irradiance:	0.30	$W/(m^2 \cdot nm)$	at 340nm
Black-panel temperature:	63 ± 2	°C	
Relative humidity:	50 ± 10	%	
Exposure time:	300	h	
Spectrophotometer:	Under D65 standard light source, 10° observer		

Test Result:

Specimen	ΔE*	Average ΔE*
1	0.36	0.34
2	0.27	
3	0.40	

Test Photo:



After exposure

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Test Items, Method and Results:

Test Item: Thickness swell

Test Method: ASTM F3261-20 section 8.8

Test Condition: Specimens were submerged under the water at (20±1)°C for 24 hours.

Product with foam back layer: Yes

Test Result:

Test without attached back

Specimen	Location	Thickness (mm)		Thickness Swell (%)	
		Initial	Final	Individual	Avergae
1	a	5.08	5.10	0.39	0.32
	b	5.10	5.12	0.39	
	c	5.10	5.11	0.20	
	d	5.08	5.09	0.20	
2	a	5.09	5.11	0.39	
	b	5.10	5.12	0.39	
	c	5.10	5.11	0.20	
	d	5.04	5.06	0.40	

Test with attached back

Specimen	Location	Thickness (mm)		Thickness Swell (%)	
		Initial	Final	Individual	Avergae
1	a	6.62	6.63	0.15	0.27
	b	6.58	6.59	0.15	
	c	6.59	6.61	0.30	
	d	6.65	6.66	0.15	
2	a	6.60	6.62	0.30	
	b	6.57	6.60	0.46	
	c	6.57	6.59	0.30	
	d	6.53	6.55	0.31	

Test Report

Issue Date: 2021-06-07 Intertek Report No. 210510010SHF-001

Appendix A: Sample Received Photo

Front View(test surface)

Back View

Revision:

NO.	Date	Changes
210510010SHF-001	2021-06-07	First issue

TEST REPORT

No. : SHIN2102007964CM
Date : Mar 15, 2021

scan to see the report
SHIN2102007964CM

CUSTOMER NAME: ZHEJIANG SUNTEC FLOR NEW MATERIALS CO., LTD.

ADDRESS: 168 QIANGHUA WEST ROAD, ECONOMIC DEVELOPMENT ZONE, NANXUN DISTRICT, HUZHOU CITY, ZHEJIANG PROVINCE, CNINA

Sample Name	:	SPC FLOORING
Product Specification	:	6.5mm
Material and Mark	:	PVC+pad

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	:	Please see the next page(s)
SGS Ref. No.	:	IN-SH-CP-5627-21017
Ref. Standard	:	Please see the next page(s)
Date of Receipt	:	Feb 03, 2021
Testing Start Date	:	Feb 03, 2021
Testing End Date	:	Mar 10, 2021
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)

Signed for
SGS-CSTC Standards Technical Service (Shanghai)Co., Ltd.

Erin Huang
Authorized signatory

No.69, Block 1159, East Kang Qiao Road, Pudong District, Shanghai, China. 201319 t(86-21)61196300 f(86-21)61191853/68183920 www.sgsgroup.com.cn
中国・上海・浦东康桥东路1159弄69号 邮编:201319 t(86-21)61196300 f(86-21)61191853/68183920 e sgs.china@sgs.com

TEST REPORT

Summary of Results:

No.	Test Item	Test Method	Result	Conclusion
1	Thermal Conductivity	EN 14041:2004/AC:2006 Clause 4.7 & EN 12667:2001 Heat Flow Meter Method	0.102 W/(m·K)	/
2	Overall Thickness	EN 14041:2004/AC:2006 & EN 649:2011 & EN ISO 24346:2012	See Result	Pass
3	Formaldehyde Emission	With reference to EN 717-1:2004	ND	Pass
4	Dynamic Coefficient of Friction	EN 14041:2004/AC:2006 & EN 13893:2002	See Result	Pass

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

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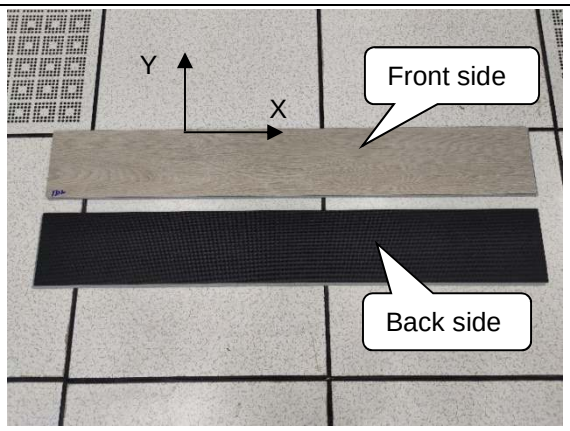
TEST REPORT

No. : SHIN2102007964CM
Date : Mar 15, 2021

Original Sample Photo(s):

	
Thermal Conductivity / Overall Thickness - Front View	Thermal Conductivity / Overall Thickness - Back View
	
Formaldehyde Emission	Dynamic Coefficient of Friction

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TEST REPORT

1. Test Item: Thermal Conductivity

Test Method: EN 14041:2004/AC:2006 Clause 4.7 & EN 12667:2001 Heat Flow Meter Method

Test Condition:

Specimen: 301mm×301mm×6.5mm, 1pc

Density: about 1559kg/m^3

Mean temperature: 23℃

Temperature difference: 10℃

Lab Environmental Condition: 23±2℃, 50±5%RH

Test Result:

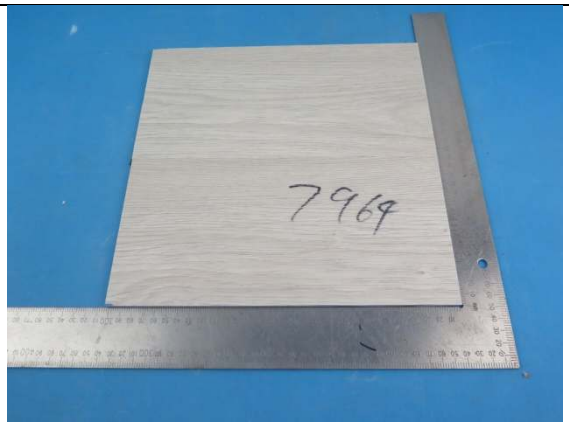
Test Item	Test Result
Thermal Conductivity	0.102 W/(m·K)

Note:

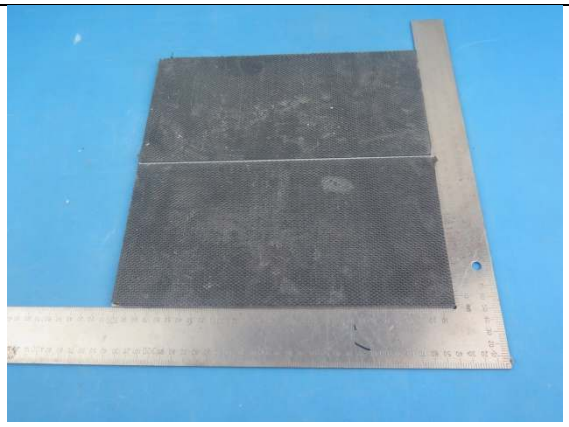
1) The test result can not be compared with other results obtained from different test conditions, and should not be cited to the use condition directly.

2) Test specimen was cut from original sample which was jointed by two pieces.

Specimen Photo(s):



This surface contacts with hot plate.



This surface contacts with cold plate.

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TEST REPORT

2. Test Item: Overall Thickness

Test Method: EN 14041:2004/AC:2006 & EN 649:2011 & EN ISO 24346:2012

Test Condition:

Specimen: 100mm×50mm×6.5mm, 5pcs

Nominal Thickness: 6.5mm

Lab Environmental Condition: 23±2℃, 50±5%RH

Test Result:

Test Item	Test Result	Requirement in EN 649:2011 Table 1	Conclusion
Overall Thickness (mm)	Average Value: 6.52 Maximum Value: 6.55 Minimum Value: 6.48	Average value: Nominal value $^{+0.13}_{-0.10}$ Individual value: Average value±0.15	Pass

Note: Test specimens were cut from original samples.

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TEST REPORT

3. Test Item: Formaldehyde Emission

Test Part Description: Black/Beige solid piece

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

Test Results:

Test Item(s)	Limit	Unit	MDL	Results	Conclusion
Formaldehyde Emission (In air)	0.12	mg/m^3	0.080	ND	Pass

Notes:

(1) The maximum permissible limit is quoted from the client requirement.

(2) The reported result is for reference only.

Remarks:

(1) 1 mg/kg = 0.0001%

(2) MDL = Method Detection Limit

(3) ND = Not Detected (< MDL)

(4) "-" = Not Regulated

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TEST REPORT

4. Test item: Dynamic Coefficient of Friction

Test Method: EN 14041:2004/AC:2006 & EN 13893:2002

Test condition:

Specimen dimension: 1220mm×180mm×6.5mm

Testing surface: front side

Testing speed: 0.20m/s

Test Result:

Result	Requirement in EN 14041:2004/AC:2006	Comments
Dynamic Coefficient of Friction: X Direction: 0.35 Y Direction: 0.32 Result: 0.32	The floor covering intended to be used in dry and non-contaminated conditions shall have a dynamic coefficient of friction of ≥ 0.30 when tested ex-factory under dry conditions in accordance with EN 13893 and shall be declared as technical class DS.	Technical class DS Pass

Note: The test was performed by SGS-CSTC Standards Technical Services Co., Ltd. Xiamen Branch Testing Center.

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

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Test Report

ZHEJIANG SUNTEC FLOR NEW MATERIALS CO., LTD

168 QIANGHUA WEST ROAD, ECONOMIC DEVELOPMENT ZONE, NANXUN DISTRICT, HUZHOU CITY, ZHEJIANG PROVINCE, CHINA

Sample Name: SPC FLOOR

SGS Ref No.: NBIN2208010135SC

Style No.: 3.5mm-8.0mm THICKNESS

Manufacturer: ZHEJIANG SUNTEC FLOR NEW MATERIALS CO., LTD

Product Specification: 3.5mm-8mm THICKNESS

Additional Information: PRODUCT: SPC FLOORING (RIGID VINYL FLOORING), MODELS (TOTAL/WEAR LAYER THICKNESS): 3.5/0.3 mm, 4/0.3 mm, 4/0.5 mm, 4.5/0.3 mm, 4.5/0.5 mm, 5/0.3 mm, 5/0.5 mm, 5.5/0.3 mm, 5.5/0.5 mm, 6/0.3 mm, 6/0.5 mm, 6/0.7 mm, 6.5/0.3 mm, 6.5/0.5 mm, 6.5/0.7 mm, 7/0.3 mm, 7/0.5 mm, 7/0.7 mm, 7.5/0.3 mm, 7.5/0.5 mm, 7.5/0.7 mm, 8/0.3 mm, 8/0.5 mm, 8/0.7 mm. The above sample(s) was / were submitted and identified on behalf of the client. SGS is not responsible for the authenticity, integrity and results of the data and information and / or the validity of the conclusion arising therefrom. Results apply to the sample as received.

****

Test Requested:

EN 13501-1:2018 Fire classification of construction products and building elements---Part 1: Classification using data from reaction to fire tests.

Test Results: -- See attached sheet –

Test Period:

Sample Receiving Date	:	AUG.29, 2022
Test Performing Date	:	AUG.29, 2022 TO SEP.14, 2022

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Anji Branch

Allen Zou
Approved Signatory

scan to see the report
AJFS2208007041FF

I. Test conducted

This test was conducted as per EN 13501-1:2018 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 11925-2:2020 Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test.

II. Details of classified product

Sample description	SPC Floor (Provided by client)
Color	Sample A: Grey; Sample B: Grey
Sample Size	EN ISO 9239-1: 1050mm×230mm EN ISO 11925-2: 250mm×90mm
Thickness	Sample A: 8.0mm; Sample B: 3.5mm
Mass per unit area	Sample A: 15.8 kg/m^2; Sample B: 6.9 kg/m^2
Exposed surface	The grey face

Mounting and fixing:

Fibre cement board, with its density approximate 1800kg/m^3, thickness approximate 9mm, is as the substrate. The test specimens are fixed mechanically to the substrate. Have joints in the specimen.

III. Test results

Sample A

Test methods	Parameter	Number of tests	Results
EN ISO 9239-1	Critical flux (kW/m^2)	3	≥11
	Smoke (%×minutes)		5.6
EN ISO 11925-2 Exposure = 15 s	Whether vertical flame spread (Fs) in excess of 150 mm within 20 s (Yes/No)	6	No

Sample B

Test methods	Parameter	Number of tests	Results
EN ISO 9239-1	Critical flux (kW/m^2)	3	≥11
	Smoke (%×minutes)		27.3
EN ISO 11925-2 Exposure = 15 s	Whether vertical flame spread (Fs) in excess of 150 mm within 20 s (Yes/No)	6	No

SGS-CSTC Standards Technical Services Co., Ltd. Anji Branch Fire Technology Service

No. 301, Sunlight Road, 2 Block, Sunlight Industry Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.sgsgroup.com.cn
中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编:313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com

IV. Classification and direct field of application

a) Reference of classification

This classification has been carried out in accordance with **EN 13501-1:2018**.

b) Classification

The product, SPC Floor (Provided by client), in relation to its reaction to fire behaviour is classified:

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.

c) Field of application

This classification is valid for the following end use applications:

--- 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 section 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.

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	$\Delta T \leq 30℃$, and $\Delta m \leq 50\%$, and t_f=0(i.e. no sustained flaming)	-
	EN ISO 1716	PCS≤2.0MJ/kg [a] and PCS≤2.0MJ/kg [b] and PCS≤1.4MJ/m^2 [c] and PCS≤2.0MJ/kg [d]	-
$A2_{fl}$	EN ISO 1182 [a] or	$\Delta T \leq 50℃$, and $\Delta m \leq 50\%$, and $t_f \leq 20s$	-
	EN ISO 1716 and	PCS≤3.0MJ/kg [a] and PCS≤4.0MJ/m^2 [b] and PCS≤4.0MJ/m^2 [c] and PCS≤3.0MJ/kg [d]	-
	EN ISO 9239-1 [e]	Critical flux [f] ≥8.0kW/ m^2	Smoke production [g]
B_{fl}	EN ISO 9239-1 [e] and	Critical flux [f] ≥8.0kW/ m^2	Smoke production [g]
	EN ISO 11925-2 [h] Exposure =15s	Fs≤150mm within 20 s	-
C_{fl}	EN ISO 9239-1 [e] and	Critical flux [f] ≥4.5kW/ m^2	Smoke production [g]
	EN ISO 11925-2 [h] Exposure =15s	Fs≤150mm 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 =15s	Fs≤150mm within 20 s	-
E_{fl}	EN ISO 11925-2 [h] Exposure =15s	Fs≤150mm within 20 s	-
F_{fl}	EN ISO 11925-2 [h] Exposure =15s	Fs > 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.

Remark: The test method EN ISO 11925-2:2020 is not in CMA accredited scope. The test report shall only be used for client internal reference.

Photo Appendix:

	
Sample A	Sample B

SGS authenticate the photo on original report only

End of Report

GREENGUARD CERTIFICATION TEST REPORT

Customer Information	Zhejiang Suntec Flor New Materials Co., Ltd Martin Qi 168 Qianghua West Road, Economic Development Zone Nanxun District, Huzhou City Zhejiang 313009 China				
Product Description	3.5mm~8mm SPC Flooring without Underlay				
Test Group	Vinyl Flooring - 01 (SPC)				
Category	Flooring				
Test Type	Certification	Year 2			
Test Method	UL 2821 "GREENGUARD Certification Program Method for Measuring and Evaluating Chemical Emissions From Building Materials, Finishes and Furnishings Using Dynamic Environmental Chambers"				

	Environment	TVOC	Formaldehyde	Total Aldehydes	CREL/TLV
GREENGUARD	Office	✓	✓	✓	✓
GREENGUARD Gold	Office	✓	✓	✓	✓
	Classroom	✓	✓	✓	✓

✓ - meets criteria; X - over criteria

Authorized by

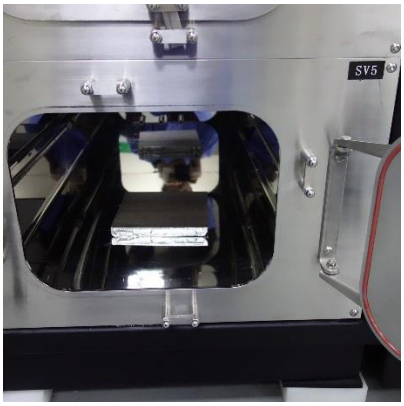
Ring Zhong
Laboratory Testing Supervisor

MODELING FOR PREDICTED AIR CONCENTRATION

Certification Program	Environment Basis	Modeling Basis	Surface Area (m^2)	Room Volume (m^3)	ACH (1/hr)
GREENGUARD and GREENGUARD Gold Office	CDPH/EHLB/Standard Method	floor	11.1	30.6	0.68
GREENGUARD Gold Classroom	CDPH/EHLB/Standard Method	floor	89.2	231	0.82

Note that certain environments and/or modeling scenarios may prevent assessment of low level CREL and TLV analytes due to the emissions being below the lower LOQ (0.04 µg). For example, benzene ½ CREL is 1.5 µg/m^3.

PHOTOGRAPH OF SAMPLE



GREENGUARD RESULTS SUMMARY

Product Description	3.5mm~8mm SPC Flooring without Underlay		
GREENGUARD Acceptable IAQ Criteria		**168 Hour Product Measurement**	**Product Compliance for IAQ**
TVOC[a]	≤ 0.5 mg/m³	< 0.002 mg/m³	Yes
Formaldehyde	≤ 0.05 ppm	< 0.002 ppm	Yes
Total Aldehydes[b]	≤ 0.10 ppm	< 0.002 ppm	Yes
4-Phenylcyclohexene	≤ 0.0065 mg/m³	< 0.002 mg/m³	Yes
Individual VOCs	all ≤ 1/10 TLV	----------[c]	Yes

[a] "TVOC" is the sum of all VOCs measured via TD/GC/MS which elute between n-hexane (C_6) and n-hexadecane (C_{16}) quantified using calibration to a toluene surrogate.
[b] "Total Aldehydes" is the sum of all measured normal aldehydes from formaldehyde to nonanal, plus benzaldehyde. Heptanal through nonanal are analyzed using TD/GC/MS. The remaining aldehydes are analyzed using HPL/UV methodology. All aldehydes are quantified to authentic standards.
[c] All individual VOCs detected met the criteria of less than 1/10 the ACGIH established threshold limit values (TLVs).

PROJECT DESCRIPTION

This study was conducted using a UL Environment's GREENGUARD test method following the requirements of GREENGUARD Certification program. The product was monitored for emissions of total volatile organic compounds (TVOC), formaldehyde, target list aldehydes, and other individual volatile organic compounds (VOCs) over a 168-hour exposure period. These emissions were measured, and the resultant air concentrations were determined for each of the potential pollutants. Determination of compliance is based on predicted air concentrations modeled using the GREENGUARD program room loading.

Report Outline:

Download more information regarding UL's technical references and resources, product evaluation methodologies information, quality control program, and environmental chamber evaluations from our website click here or https://www.ul.com/offerings/greenguard-certification

For RSD, Quality Assurance Report or other quality documents, Request here or contact ULE.

TABLE 1

ENVIRONMENTAL CHAMBER STUDY PARAMETERS			
Product Description	3.5mm~8mm SPC Flooring without Underlay		
Product Manufacture Date	June 1, 2022		
Product Collection Date	June 6, 2022		
Product Shipping Date	June 8, 2022		
Date Received	June 13, 2022		
Test Description	The product was received by ULE Guangzhou Laboratory as packaged and shipped by the customer. The package was visually inspected and stored in a controlled environment immediately following sample check-in. Just prior to loading, the product was unpackaged and prepared for the required loading to expose the finished surfaces only. The sample was placed inside the environmental chamber, and tested according to the specified protocol.		
Test Period	June 14, 2022 - June 21, 2022**		
Area	one-sided area = 0.0378 m²		
Environmental Chamber ID and Volume	SV5 - 0.0866 m³		
Product Loading	0.44 m²/m³		
Test Conditions	1.00 ± 0.05 ACH 50% RH ± 5% RH 22.3ºC - 23.4ºC		
***Accredited Laboratory Locations**	**Testing Laboratory**	**Analytical Laboratory**	**Technical Reporting Location**
	ULE - Guangzhou	ULE - Guangzhou	ULE - Guangzhou

**The manufacturing date was not within 10 days of receipt and testing of product.

The temperature range specification is 23°C ± 1°. The actual temperature range listed above may vary slightly. If the range is outside this specification, data was reviewed to ensure a negative impact did not occur.

*Accredited Laboratory Locations	
Location	**Address**
ULE - Marietta	UL Environment 2211 Newmarket Parkway, Marietta, GA 30067-9399 USA
ULE - Guangzhou	UL Verification Services (Guangzhou) 1-3F & Room 501, Building 2 (R&D Center A1), No. 25, South Huanshi Avenue, Nansha District, Guangzhou 511458, China
ULE - Cabiate	UL International Italia S.r.l ATTN: IAQ Laboratory Via Europa, 9, I – 22060 – Cabiate (Como), Italia
ULE - Vietnam	UL VS (VIET NAM) CO. LTD., Lot C5, Conurbation 2, Street K1, Cat Lai Industrial Zone, Thanh My Loi Ward, District 2, Ho Chi Minh City, Vietnam
UL - Shimadzu	Shimadzu Techno-Research, Inc. 1, Nishinokyo-Shimoaicho Nakagyo-ku, Kyoto 604-8436 Japan
KCL	Korea Conformity Laboratories #805, I-Valley, 149 Gongdan-ro Gunpo-si, Gyeonggi-do, 15849 Korea
Normec	Normec Product Testing N.V. Honderdweg 13, 9320 Wetteren Belgium

This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by International Accreditation Service. Refer to certificate and scope of accreditation TL-441.
This test report is for intended use in certification programs.

TABLE 2

Product Description	3.5mm~8mm SPC Flooring without Underlay

TVOC CHAMBER CONCENTRATIONS, EMISSION FACTORS AND PREDICTED AIR CONCENTRATIONS

Elapsed Exposure Hour*	Chamber Concentration µg/m³	Emission Factor µg/m²•hr	Predicted Air Concentration** µg/m³
0 (Background)	BQL	BQL	---
6	BQL	BQL	< 2
24	BQL	BQL	< 2
48	BQL	BQL	< 2
72	BQL	BQL	< 2
96	BQL	BQL	< 2
168	BQL	BQL	< 2

FORMALDEHYDE CHAMBER CONCENTRATIONS, EMISSION FACTORS AND PREDICTED AIR CONCENTRATIONS

Elapsed Exposure Hour*	Chamber Concentration µg/m³	Emission Factor µg/m²•hr	Predicted Air Concentration**	
			µg/m³	ppm
0 (Background)	BQL	BQL	---	---
6	BQL	BQL	< 2	< 0.002
24	BQL	BQL	< 2	< 0.002
48	BQL	BQL	< 2	< 0.002
72	BQL	BQL	< 2	< 0.002
96	BQL	BQL	< 2	< 0.002
168	BQL	BQL	< 2	< 0.002

TARGET LIST ALDEHYDES CHAMBER CONCENTRATIONS, EMISSION FACTORS AND PREDICTED AIR CONCENTRATIONS

Elapsed Exposure Hour*	Chamber Concentration µg/m³	Emission Factor µg/m²•hr	Predicted Air Concentration**	
			µg/m³	ppm
0 (Background)	BQL	BQL	---	---
6	BQL	BQL	< 2	< 0.002
24	BQL	BQL	< 2	< 0.002
48	BQL	BQL	< 2	< 0.002
72	BQL	BQL	< 2	< 0.002
96	BQL	BQL	< 2	< 0.002
168	BQL	BQL	< 2	< 0.002

*Exposure hours are nominal (± 1 hour).

BQL = Below quantifiable level of 0.04 µg based on a standard 18 L air collection volume for VOCs and 0.1 µg based on a standard 45 L air collection volume for aldehydes.

**Predicted Air Concentrations are based on GREENGUARD modeling predicted concentration parameters. For more information click here.

TABLE 3

Product Description	3.5mm~8mm SPC Flooring without Underlay						
CHAMBER CONCENTRATIONS OF IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS							
CAS Number	**Compound**	**Elapsed Exposure Hour (µg/m³)**						
		0 (BG)	**6**	**24**	**48**	**72**	**96**	**168**
---	none	---	---	---	---	---	---	---

TABLE 4

Product Description	3.5mm~8mm SPC Flooring without Underlay					
EMISSION FACTORS OF IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS						
CAS Number	**Compound**	**Elapsed Exposure Hour (µg/m²•hr)**				
		6	**24**	**48**	**72**	**96**	**168**
---	none	---	---	---	---	---	---

*Indicates NIST/EPA/NIH best library match only based on retention time and mass spectral characteristics.

†Denotes quantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene.

Quantifiable level is 0.04 µg based on a standard 18 L air collection volume.

TABLE 5

Product Description	3.5mm~8mm SPC Flooring without Underlay

CHAMBER CONCENTRATIONS OF TARGET LIST ALDEHYDES

CAS Number	**Compound**	**Elapsed Exposure Hour (µg/m³)**						
		0 (BG)	**6**	**24**	**48**	**72**	**96**	**168**
4170-30-3	2-Butenal	BQL	BQL	BQL	BQL	BQL	BQL	BQL
75-07-0	Acetaldehyde	BQL	BQL	BQL	BQL	BQL	BQL	BQL
100-52-7	Benzaldehyde	BQL	BQL	BQL	BQL	BQL	BQL	BQL
5779-94-2	Benzaldehyde, 2,5-dimethyl	BQL	BQL	BQL	BQL	BQL	BQL	BQL
529-20-4	Benzaldehyde, 2-methyl	BQL	BQL	BQL	BQL	BQL	BQL	BQL
620-23-5 /104-87-0	Benzaldehyde, 3- and/or 4-methyl	BQL	BQL	BQL	BQL	BQL	BQL	BQL
123-72-8	Butanal	BQL	BQL	BQL	BQL	BQL	BQL	BQL
590-86-3	Butanal, 3-methyl	BQL	BQL	BQL	BQL	BQL	BQL	BQL
50-00-0	Formaldehyde	BQL	BQL	BQL	BQL	BQL	BQL	BQL
66-25-1	Hexanal	BQL	BQL	BQL	BQL	BQL	BQL	BQL
110-62-3	Pentanal	BQL	BQL	BQL	BQL	BQL	BQL	BQL
123-38-6	Propanal	BQL	BQL	BQL	BQL	BQL	BQL	BQL

TABLE 6

Product Description	3.5mm~8mm SPC Flooring without Underlay

EMISSION FACTORS OF TARGET LIST ALDEHYDES

CAS Number	**Compound**	**Elapsed Exposure Hour (µg/m²•hr)**					
		6	**24**	**48**	**72**	**96**	**168**
4170-30-3	2-Butenal	BQL	BQL	BQL	BQL	BQL	BQL
75-07-0	Acetaldehyde	BQL	BQL	BQL	BQL	BQL	BQL
100-52-7	Benzaldehyde	BQL	BQL	BQL	BQL	BQL	BQL
5779-94-2	Benzaldehyde, 2,5-dimethyl	BQL	BQL	BQL	BQL	BQL	BQL
529-20-4	Benzaldehyde, 2-methyl	BQL	BQL	BQL	BQL	BQL	BQL
620-23-5 /104-87-0	Benzaldehyde, 3- and/or 4-methyl	BQL	BQL	BQL	BQL	BQL	BQL
123-72-8	Butanal	BQL	BQL	BQL	BQL	BQL	BQL
590-86-3	Butanal, 3-methyl	BQL	BQL	BQL	BQL	BQL	BQL
50-00-0	Formaldehyde	BQL	BQL	BQL	BQL	BQL	BQL
66-25-1	Hexanal	BQL	BQL	BQL	BQL	BQL	BQL
110-62-3	Pentanal	BQL	BQL	BQL	BQL	BQL	BQL
123-38-6	Propanal	BQL	BQL	BQL	BQL	BQL	BQL

Quantifiable level is 0.1 µg is based on a standard 45 L air collection volume.

TABLE 7

SUPPLEMENTAL EMISSIONS INFORMATION

The table below represents this product's identified chemical emissions found on certain regulatory lists. This list only provides a statement regarding possible health effects associated with this compound and not the relative risks of exposure. Proper interpretation of the risks associated with exposure to a given regulated compound requires a more detailed evaluation of toxicological activity. Certain purchasing programs may require this information be submitted.

Product Description	3.5mm~8mm SPC Flooring without Underlay						
CAS Number	**Compound**	**✓() = FOUND IN LISTING (CLASS)**					
		CAL PROP. 65	**NTP**	**IARC**	**CAL AIR TOXICS**	**CREL**	**TLV**
---	none	---	---	---	---	---	---

†Denotes quantified using multipoint authentic standard curve

CAL Prop. 65: California Health and Welfare Agency, Proposition 65 Chemicals
1 = known to cause cancer
2 = known to cause reproductive toxicity

NTP: National Toxicology Program
2A = known to be carcinogenic to humans
2B = reasonably anticipated to be carcinogenic to humans

IARC: International Agency on Research of Cancer
1 = carcinogenic to humans
2A = probably carcinogenic to humans
2B = possibly carcinogenic to humans
3 = unclassifiable as to carcinogenicity to humans
4 = probably not carcinogenic to humans

California Air Toxics
I = Substances identified as Toxic Air Contaminants, known to be emitted in California, with a full set of health values reviewed by the Scientific Review Panel.
IIA = Substances identified as Toxic Air Contaminants, known to be emitted in California, with one or more health values under development by the Office of Environmental Health Hazard Assessment for review by the Scientific Review Panel.
IIB= Substances NOT identified as Toxic Air Contaminants, known to be emitted in California, with one or more health values under development by the Office of Environmental Health Hazard Assessment for review by the Scientific Review Panel.
III = Substances known to be emitted in California and are NOMINATED for development of health values or additional health values.
IVA = Substance identified as Toxic Air Contaminants, known to be emitted in California and are TO BE EVALUATED for entry into Category III.
IVBA =Substance NOT identified as Toxic Air Contaminants, known to be emitted in California and are TO BE EVALUATED for entry into Category III.
V = Substance identified as Toxic Air Contaminants, and NOT KNOWN TO BE EMITTED from stationary source facilities in California based on information from the AB 2588 Air Toxic "Hot Spots" Program and the California Toxic Release Inventory.
VI = Substances identified as Toxic Air Contaminants, NOT KNOWN TO BE EMITTED from stationary source facilities in California, and are active ingredients in pesticides in California.

CREL: California Office of Environmental Health's Hazard Assessment (OEHHA), Chronic Reference Exposure Levels. The GREENGUARD program does not include all Chronic Reference Exposure Levels (CRELs) adopted by the State of California Office of Environmental Health Hazard Assessment (OEHHA). For example, caprolactam and 2-butoxyethanol.
✓ = Found in Listing

ACGIH TLV American Conference of Governmental Industrial Hygienists Threshold Limit Values for Chemical Substances and Physical Agents.
✓ = Found in Listing.

CHAIN OF CUSTODY

9of1

INTERNAL Use Only			
Project #	1001590884		
Product #	5048766		
Order #	14369113		
Task Line	2-1	UL BU	
____ of ____			

5048766

5048766

Description
3.5mm 8mm SPC Flooring without Underlay

Customer Zhejiang Suntec Flor New Mater
Received Date: 2022-JUN-13 17:59:10
LabWare Project No: 1001590884
Order No.: 14369113
Oracle Project No.: 4790448079

1 of 1

☐ ***Rush Request – Subject to upcharge.*** *Customer must confirm with UL prior to submitting product.*

GREENGUARD Test Information					
Test Type	☒ Certification Test • Annual/Initial Year 2			☐ Out-of-Scope Test	
	☐ Quarterly Test • Year Quarter			☐ Profile Study Test	
Service Line	☒ GREENGUARD ☒ GREENGUARD GOLD ☐ Other _____				
Test Group	Vinyl Flooring-01 (SPC)				
Product Category	Flooring		Subcategory	Vinyl	
Application	☐ Floor/Ceiling	☐ Panel	☐ Wall	☐ Work Surface	☐ Other: _____
Wet Products Only	Coverage Rate		Density		Specific Gravity

Product and Company Information			
Product Description	3.5mm~8mm SPC Flooring without Underlay		
Manufacture ID#			
Company Name	Zhejiang Suntec Flor New Materials Co., Ltd	Date Manufactured	06/Jun/2022
		Contact Name	Zecheng He
Address		Job Title	Manager
		Contact Phone	13735198913
		Contact Email	hezecheng@suntecflooring.com

Collection Information			
Collector Name	Zecheng He	Date Collected	06/Jun/2022
Collector Phone	13735198913	Time Collected	13:00
Collector Signature	Zecheng	Collection Location	

Shipping Information			
Carrier			
Shipper Name		Date Shipped	06/Jun/2022
Shipper Phone		Time Shipped	
Shipper Signature		Air Bill #	

Sample Submitted to			
☐ UL Environment (Marietta) 2211 Newmarket Pkwy Suite 199 Marietta, GA 30067, USA	☐ UL Verification Services (Guangzhou) Building A1, 3F, Nansha Science and Technology Innovation Ctr, No. 25, South Huanshi Avenue, Nansha District, Guangzhou 511458, China	☐ UL International Italia S.r.l ATTN: IWQ Laboratory Via Europa, 9 I – 22060 – Cabiate (Como), Italia	☐ UL VS (Vietnam) Co., Ltd. Lot C8, Conurbation 2, Street K1, Cat Lai Industrial Zone Thanh My Loi Ward, Thu Duc City Ho Chi Minh City, Vietnam

Post Testing Sample Disposition (Sample will be disposed of 30 days after report is issued if information below is not provided)			
Return Shipping Co.		Customer Shipping Acct #	

Internal Use Only – Receiving Information					
Receiver Name			Receiver Signature	Ryan WU	
Condition Upon Arrival	☑ Acceptable	☐ Not Acceptable	Receive Date	6/13/2022	
Condition Notes			Receive Time	18:10	
Completed By		Based On	Program Testing Schedule	Date	05/11/2022

00-EN-F0853 – Issue 7.0

APPENDIX 1

GREENGUARD GOLD RESULTS SUMMARY

Product Description	3.5mm~8mm SPC Flooring without Underlay			
COMPLIANCE WITH GREENGUARD GOLD STANDARD				
GREENGUARD Gold Acceptable IAQ Criteria		**168 Hour Predicted Concentration****		**Product Compliance for IAQ**
		Office	**Classroom**	
TVOC	**≤ 0.22 mg/m³**	< 0.002 mg/m³	< 0.002 mg/m³	Yes
Formaldehyde	**≤ 0.0073 ppm**	< 0.002 ppm	< 0.002 ppm	Yes
Total Aldehydes	**≤ 0.043 ppm**	< 0.002 ppm	< 0.002 ppm	Yes
1-Methyl-2-Pyrrolidinone	**≤ 0.16 mg/m³**	< 0.002 mg/m³	< 0.002 mg/m³	Yes
Individual VOCs	**≤ 1/100 TLV and ≤ ½ chronic REL**	See Below		

**Predicted Air Concentrations are based on GREENGUARD Gold modeling predicted concentration parameters.

TOP TEN MOST ABUNDANT IDENTIFIED VOCS, INCLUDING ALDEHYDES					
CAS Number	**Compound**	**168 Hour Chamber Concentration (µg/m³)**	**168 Hour Emission Factor (µg/m²•hr)**	**Predicted Air Concentration** (µg/m³)**	
				Office	**Classroom**
---	none	---	---	---	---

CHEMICALS OF CONCERN WITH EXISTING TLV, CREL, CA PROP 65 OR CAL TOXIC AIR CONTAMINANT VALUES									
CAS Number	**Compound**	**168 Hour Chamber Concentration (µg/m³)**	**168 Hour Emission Factor (µg/m²•hr)**	**168 Hour Predicted Concentration** (µg/m³)**		**✓ INDICATES PRESENCE ON LIST**			
				Office	**Classroom**	**CA PROP 65**	**CA TAC**	**CA CREL[b]**	**ACGIH TLV**
---	none	---	---	---	---	---	---	---	---

COMPARISON OF COMPOUNDS FOUND WITH EXISTING TLV AND/OR CHRONIC REL						
CAS Number	**Compound**	**1/100 TLV[a] (µg/m³)**	**½ CA Chronic REL[b] (µg/m³)**	**168 Hour Predicted Concentration** (µg/m³)**		**Product Compliance**
				Office	**Classroom**	
---	none	---	---	---	---	---

[a]American Conference of Governmental Industrial Hygienists. Threshold Limit Values for Chemical Substances and Physical Agents. Cincinnati, OH: ACGIH.

[b]Chronic Reference Exposure Levels (CRELs) adopted by the State of California Office of Environmental Health Hazard Assessment (OEHHA). Note that Gold assessment is only for the CDPH Table 4-1 CRELs, but other CRELS are included for informational purposes only. Also, not all OEHAA CRELs are pulled into this assessment. For example, caprolactam and 2-butoxyethanol are not included.

†Denotes quantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene.

‡Indicates compound identified and quantified by DNPH derivitization and HPLC/UV analysis with multipoint authentic standard.

*Identification based on NIST mass spectral database only.

**Predicted Air Concentrations are based on modeling predicted concentration parameters shown above.

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Registration No. 0350221Q30429R0M

This is to certify that the quality management system of

Zhejiang Shijing New Material Technology Co., Ltd.

South of First Floor, No.168 Qianghuaxi Road, Nanxun Economic Development Zone, Huzhou, Zhejiang, 313009

Social Credit Code: 91330503MA2D1X059L

is in conformity with

GB/T 19001-2016 / ISO 9001:2015 Standard

This certificate is valid to the following product(s)

Design Development, Production and service of PVC Plastics Floor (Site Covered: South of First Floor, No.168 Qianghuaxi Road, Nanxun Economic Development Zone, Huzhou, Zhejiang).

Date of issue: August 09, 2021
Date of expiry at most: August 08, 2024

Representative: *WangHonglin*

XINGYUAN CERTIFICATION CENTRE CO., LTD. (XQCC)

(7FL, Tower C, Jianua Plaza, No.9 Shangdi 3 St., Haidian, Beijing)

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NOTE: This certificate shall be maintained by regular surveillance audit.
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The information of the certificate can be available in http://www.cnca.gov.cn, the website of CNCA, and in our website http://www.xqcc.com.cn.

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Registration No. 0350221E20259R0M

This is to certify that the environmental management system of

Zhejiang Shijing New Material Technology Co., Ltd.

South of First Floor, No.168 Qianghuaxi Road, Nanxun Economic Development Zone, Huzhou, Zhejiang, 313009

Social Credit Code: 91330503MA2D1X059L

is in conformity with

GB/T 24001-2016 / ISO 14001:2015 Standard

This certificate is valid to

Design Development, Production and service of PVC Plastics Floor (Site Covered: South of First Floor, No.168 Qianghuaxi Road, Nanxun Economic Development Zone, Huzhou, Zhejiang).

Date of issue: August 09, 2021
Date of expiry at most: August 08, 2024

Representative: *WangHonglin*

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OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

Registration No. 0350221S30198R0M

This is to certify that the occupational health and safety management system of

Zhejiang Shijing New Material Technology Co., Ltd.

South of First Floor, No.168 Qianghuaxi Road, Nanxun Economic Development Zone, Huzhou, Zhejiang, 313009

Social Credit Code: 91330503MA2D1X059L

is in conformity with

GB/T 45001-2020 / ISO 45001:2018 Standard

This certificate is valid to

Design Development, Production and service of PVC Plastics Floor (Site Covered: South of First Floor, No.168 Qianghuaxi Road, Nanxun Economic Development Zone, Huzhou, Zhejiang).

Date of issue: August 09, 2021
Date of expiry at most: August 08, 2024

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