

Anhui Sentai WPC TEC Flooring Co., Ltd.

TEST REPORT

SCOPE OF WORK

SPC Flooring/rigid vinyl plank

REPORT NUMBER

190801008SHF-004

TEST DATE(S)

2019-08-01 - 2019-09-03

ISSUE DATE

2019-09-03

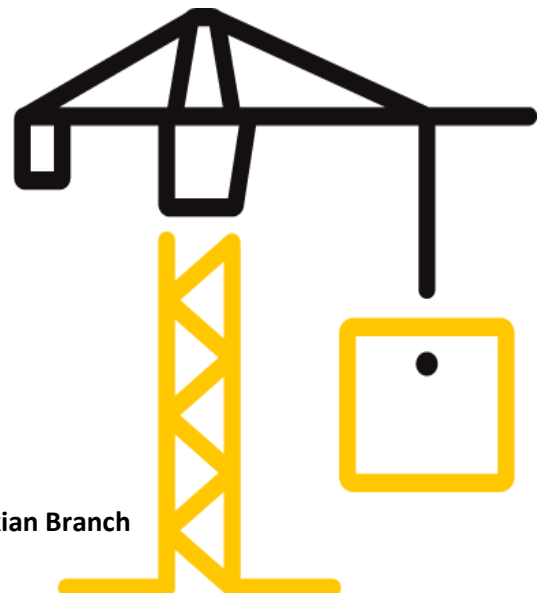
PAGES

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DOCUMENT CONTROL NUMBER

LFT-APAC-SHF-OP-10k(May 1, 2019)

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Test Report

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Test Report

Issue Date: 2019-09-03 Intertek Report No. 190801008SHF-004
 Applicant: Anhui Sentai WPC TEC Flooring Co., Ltd.
 Address: No.19, Guohua Rd., Guangde TED Zone, Guangde, Anhui, China
 Attn: Jerry Liu
 Test Type : Performance test, samples provided by the applicant.

Product Information

Product Name	SPC Flooring/rigid vinyl plank		Brand	/
Sample Description	Good Condition		Sample Amount	56 pieces
			Received Date	2019-08-14
Sample ID	Model	Specification		
S190801008SHF.014	SPC0335, 3.8/0.3mm	1220*181*3.8mm		


Test Methods And Standards

Test Standard	ISO 16000-3:2011; ISO 16000-6:2011; ISO 16000-9:2006; ISO 16000-11:2006
Specification Standard	/
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



 Name: Flora Fan Name: Milo Liu
 Title: Reviewer Title: Project Engineer

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Test Items, Method and Results:

Test Item: Volatile organic compounds content analysis

Test Method: With reference to

ISO 16000-3:2011 Indoor air - Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air - Active sampling method;

ISO 16000-6:2011 Indoor air - Part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA® sorbent, thermal desorption and gas chromatography using MS or MS/FID;

ISO 16000-9:2006 Indoor air - Part 9: Determination of the emission of volatile organic compounds from building products and furnishing - Emission test chamber method;

ISO 16000-11:2006 Indoor air - Part 11: Determination of the emission of volatile organic compounds from building products and furnishing - Sampling, storage of samples and preparation of test specimens.

Test Procedure:

The sample was tested in the emission test chamber. After 7 days, chamber air samples were collected. Samples analyzed for individual VOCs and TVOC were collected on sorbent tubes Tenax TA, and were detected by Automatic Thermal Desorption-Gas Chromatography/Mass Spectrometric (ATD-GC/MS). Samples analyzed for aldehydes were collected on DNPH cartridge, and were detected by High Performance Liquid Chromatography-Diode-Array Detector (HPLC-DAD).

Test condition:

Chamber type: 1.0 m³ stainless steel chamber

Climatic conditions: 23°C, 50% R.H

Air exchange: 0.5 h⁻¹Loading factor: 0.4 m²/m³

Sampling: Tenax TA & DNPH cartridge

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Test result:

1. Volatile Organic Compounds (VOC) Emission

The emission of the substances was classified according to a scale with 4 classes of Exposure Concentrations ranging from A⁺ to C. A⁺ indicating a very low emission level and C is a high level emission. The results of the tested sample after 7 days are shown in Table 1.

Table 1 Results of VOC Emission of target chemicals after 7 days

Testing compound	CAS No.	Limit values of emission classes ⁽¹⁾ ($\mu\text{g}/\text{m}^3$)				Chamber concentration ($\mu\text{g}/\text{m}^3$)	Predicted concentration ($\mu\text{g}/\text{m}^3$) ⁽²⁾	Emission classes
		A ⁺	A	B	C			
Formaldehyde# ⁽³⁾	50-00-0	<10	<60	<120	>120	ND ⁽⁴⁾	< 5 ⁽⁵⁾	A ⁺
Acetaldehyde# ⁽³⁾	75-07-0	<200	<300	<400	>400	ND ⁽⁴⁾	< 5 ⁽⁵⁾	A ⁺
Toluene	108-88-3	<300	<450	<600	>600	ND ⁽⁴⁾	< 2 ⁽⁵⁾	A ⁺
Tetrachloroethylene	127-18-4	<250	<350	<500	>500	ND ⁽⁴⁾	< 2 ⁽⁵⁾	A ⁺
Xylene	1330-20-7	<200	<300	<400	>400	ND ⁽⁴⁾	< 2 ⁽⁵⁾	A ⁺
1,2,4-trimethylbenzene	95-63-6	<1000	<1500	<2000	>2000	ND ⁽⁴⁾	< 2 ⁽⁵⁾	A ⁺
1,4-dichlorobenzene	106-46-7	<60	<90	<120	>120	ND ⁽⁴⁾	< 2 ⁽⁵⁾	A ⁺
Ethylbenzene	100-41-4	<750	<1000	<1500	>1500	ND ⁽⁴⁾	< 2 ⁽⁵⁾	A ⁺
2-butoxyethanol	111-76-2	<1000	<1500	<2000	>2000	ND ⁽⁴⁾	< 2 ⁽⁵⁾	A ⁺
Styrene	100-42-5	<250	<350	<500	>500	ND ⁽⁴⁾	< 2 ⁽⁵⁾	A ⁺
TVOC* ⁽³⁾	—	<1000	<1500	<2000	>2000	ND ⁽⁴⁾	< 20 ⁽⁵⁾	A ⁺

Note:

(1) Limited values were specified by French VOC labelling regulation.

(2) Predicted concentration was calculated from the emission rate obtained from chamber concentration by model room (volume 30 m³, floor surface area 12 m², air exchange rate 0.5 h⁻¹).

(3) # = indicates aldehydes identified and quantified by DNPH derivatization and HPLC/DAD analysis.

* = TVOC means sum of the concentrations of all identified and unidentified VOCs between and including n-hexane through n-Hexadecane (i.e., C₆-C₁₆) as measured by the GC/MS TIC method and expressed as a toluene equivalent value.

(4) Detection limit of chamber concentration:

for # aldehydes = 5 $\mu\text{g}/\text{m}^3$; for other individual compound = 2 $\mu\text{g}/\text{m}^3$; for TVOC = 20 $\mu\text{g}/\text{m}^3$

ND = Not detected

(5) Reporting limit of predicted concentration:

for # aldehydes = 5 $\mu\text{g}/\text{m}^3$; for other individual compound = 2 $\mu\text{g}/\text{m}^3$; for TVOC = 20 $\mu\text{g}/\text{m}^3$

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Test photo:



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APPENDIX: French VOC emission class labelling



*** Information sur le niveau d'émission de substances volatiles dans l'air intérieur, présentant un risque de toxicité par inhalation, sur une échelle de classe allant de A+ (très faibles émissions) à C (fortes émissions)**

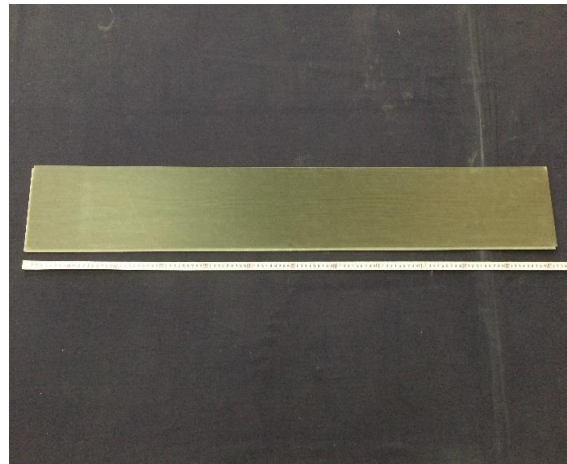
Above labelling is for reference only

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Appendix A: Sample Received Photo



Revision:

NO.	Date	Changes	Author	Reviewer
190801008SHF-004	2019-09-03	First issue	Milo Liu	Flora Fan