

Report No.: 304132666 a 001

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Client: CHANGZHOU HUAREN DECORATIVE MATERIAL CO., LTD

Contact Information: 110 EAST CHANGHONG ROAD, HENGLIN TOWN, WUJIN DISTRICT,
CHANGZHOU CITY, JIANGSU PROVINCE, CHINA

**Identification/
Model No(s):** SPC FLOORING

Condition at delivery: Test item complete and undamaged.

Sample Receiving date: 2025-06-19

Testing Period: 2025-06-20 – 2025-07-22

Place of testing: Chemical laboratory Suzhou

Test specification:

Test result:

Customer's requirement:

1. Emission test for VOC and formaldehyde based on standards ISO 16000-3, 6 & 9

Labelling of construction and decoration products with their volatile pollutant emissions (VOC and formaldehyde) – final classification

A+

Legal requirements relating to the emission of CMR substances

Requirement met

For and on behalf of
TÜV Rheinland (Suzhou) Co., Ltd.

Daisy Ju

2025-07-24

Daisy Ju / Senior Project Engineer

Date

Name/Position

Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed.

This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

'Decision Rule' document announced in our website (<https://www.tuv.com/landingpage/en/qm-gcn/>) describes the statement of conformity and its rule of enforcement for test results are applicable throughout this test report.

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Material list:

Item: SPC FLOORING

Material No.	Material	Color	Location
M001	Synthetic material	Nature	Refer to photo

Test method(s)

- DIN EN ISO 16000-3: 2023-12 Indoor air - Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air – Active sampling method (ISO 16000-3:2022)
- DIN EN ISO 16000-6: 2022-03 Indoor air – Part 6: Determination of organic compounds (VVOC, VOC, SVOC) in indoor and test chamber air by active sampling on sorbent tubes, thermal desorption and gas chromatography using MS or MS FID (ISO 16000-6:2021)
- DIN EN ISO 16000-9: 2024-08 Indoor air – Part 9: Determining the emissions of volatile organic compounds from samples of building products and furnishings – Emission test (EN ISO 16000-9:2024)

Test chamber conditions

Test chamber: Corresponding to ISO 16000-9

Test chamber volume: 1 m³

Temperature of supply air: 23 °C ± 2 °C

Relative humidity of supply air: 50 % ± 5 %

Exchange of air: 0.5 h⁻¹ ± 0.1 h⁻¹

Loading factor: 0.4 m²/m³

Inflow velocity: 0.2 m/s

1. Labelling of construction and decoration products with their volatile pollutant emissions (VOC and formaldehyde) – final classification

The emission of the substances are classified according to a scale with 4 classes ranging from A+ to C, A+ indicating a very low emission level and C indicating a high level of emission. The emission level is indicated by the exposure concentration in $\mu\text{g}/\text{m}^3$. Result of the tested sample after 28 days is shown below in table 1.

Table 1. Result

Parameter	CAS no.	Limit values of emission classes ($\mu\text{g}/\text{m}^3$)				Concentration after 28 days ($\mu\text{g}/\text{m}^3$)	Emission Class
		A+	A	B	C		
Formaldehyde	50-00-0	< 10	< 60	< 120	> 120	< 1	A+
Acetaldehyde	75-07-0	< 200	< 300	< 400	> 400	< 1	A+
Toluene	108-88-3	< 300	< 450	< 600	> 600	< 1	A+
Tetrachlorethylene	127-18-4	< 250	< 350	< 500	> 500	< 1	A+
Xylene	1330-20-7	< 200	< 300	< 400	> 400	< 1	A+
1,2,4-Trimethylbenzene	95-63-6	< 1000	< 1500	< 2000	> 2000	< 1	A+
1,4-Dichlorbenzene	106-46-7	< 60	< 90	< 120	> 120	< 1	A+
Ethylbenzene	100-41-4	< 750	< 1000	< 1500	> 1500	< 1	A+
2-Butoxyethanol	111-76-2	< 1000	< 1500	< 2000	> 2000	187	A+
Styrene	100-42-5	< 250	< 350	< 500	> 500	< 1	A+
Total VOC (TVOC) (C ₆ – C ₁₆)	--	< 1000	< 1500	< 2000	> 2000	329	A+

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2. Legal requirements relating to the emission of CMR substances

Only the concentrations of the following CMR substances have been qualified:

Parameter	CAS no.	Legal limit (µg/m ³)	Concentration (µg/m ³)
Trichloroethylene	79-01-6	< 1	< 1
Benzene	71-43-2	< 1	< 1
Bis phthalate (2-ethylhexyl) (DEHP)	117-81-7	< 1	< 1
Dibutyl phthalate (DBP)	84-74-2	< 1	< 1

Abbreviation:

VOC = Volatile Organic Compound

TVOC = Total Volatile Organic Compound

n.d. = not detected

µg/m³ = micrograms per cubic meter

CMR = Carcinogenic; Mutagenic; Reprotoxic

n.d. = not detected (< 1 µg/m³)

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Sample Photo(s)



M001

- END -

