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240118008SHr -001

TEST DATE(S)

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Test Report

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Test Report

Intertek Report No. 2401 18008SHF-001

Original Issue Date: 2024-02-20

Product Information

Product Name	Model	Specification	Brand
PET panel	3-6-9-12-24 D	2440*1220mm	brand PET
Sample ID	Sample Amount	Sample Received Date	
52401 18008SHF.001	1 PC	2024 01-18	
Sample Description			
Sample Received Photo see Appendix A			

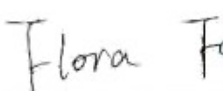
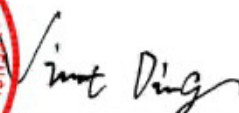
Test Methods And Standards

	CDPH/EHLB/Standard Method V1.2, 2017
Specification Standard	CDPH/EHLB/Standard Method VI.2, 30y7
	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: Flora Fan Name: Vincent Ding
 Title: Reviewer Title: Project Engineer



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Test Items, Method and Results

1. Test Standard:

CDPH/EHL8/Standard Method V1.2, 2017

Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers Version 1.2 - Emission testing method for California Specification 01350

2. Test Method: Verth reference to

ASTM D5197-16 Standard Test Method for determination of Formaldehyde and Other Carbonyl compounds in Air (Active Sampler Methodology);

ASTM D6196-15 Standard Practice for Choosing Sorbents, Sampling Parameters and Thermal Desorption Analytical Conditions for Monitoring Volatile Organic Chemicals in Air;

U.S. EPA Methods TD-17 Determination of Volatile Organic compounds in Ambient Air Using Active Sampling onto Sorbent Tubes,

ISO 16001-9:2016 Indoor air - Part 9: Determination of the emission of volatile organic compounds from building products and furnishing – Emission test chamber method;

ISO 16001-11:2016 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.

3. Test Procedure:

The sample was tested in the emission test chamber. After defined times, chamber air samples were collected. Sample 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 (HPLC).

4. Conditioning of the sample until testing date: 23°C±2°C, 50%±5%, 10days

5. Test condition:

Test chamber: 0.06 m³

Exposed sample surface area 0.06 m²

Loading factor 1.0 m² /m³

Supply air temper: 23°C±1°C

Supply air humidity: 50%±5% R.H.

Air exchange rate: 1.0 h⁻¹

Area specific flow rate: 1.0 m³/h

Sampling: Tenax TA & DNPH cartridge

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6. Test result

Table 1 Evaluation for different scenarios

Modeling scenario	Verdict(Pass/Fail)
Standard school classroom (DCI)	Pass
Private office (PO)	Pass
Single family residence (R)	Pass

Remark: "The single family residence modeling scenario is not yet a requirement and is for informational purposes

Table 2 24h, 48h and 96h Chamber Concentration and Emission Factor of Formaldehyde and TVOC

Parameter	CAS number	Chamber Concentration (pg/m ³)			Emission Factor (pg/m ³ ·h)		
		24h	48h	96h	24h	48h	96h
Formaldehyde ^o	50-00%	<2.0	<2.0	<7.0	<2.0	<2.0	<2.0
TVOC	/	HO.0	<10.0	<10.0	<10.0	<10.0	HO.0

Table 3 96h Chamber concentration and Emission Factor of all Target VOCs

NO.	Compound Name	CAS Number	Chamber Concentration (µg/m ³)	Emission Factor (µg/m ³ ·h)
1	Acetaldehyde	75-07-0	<2.0	<2.0
2	Benzene	71-43-2	<2.0	<2.0
3	Carbon disulfide	75-15-0	<2.0	<2.0
4	Carbon tetrachloride	56-23-5	<2.0	<2.0
5	Chlorobenzene	108-90-7	<2.0	<2.0
6	Chloroform	67-66-3	<2.0	<2.0
7	Dichlorobenzene (1,4-)	106-46-7	<2.0	<2.0
8	Dichloroethylene (1,d)	75-35-4	<2.0	<2.0
9	Dimethylformamide (N,N-)	68-12-2	<2.0	<2.0
10	Dioxane (1,4-)	123-91-1	<2.0	<2.0
11	Epichlorohydrin	106-89-8	<2.0	<2.0
12	Ethylbenzene	100-41-4	<2.0	<2.0
13	Ethylene glycol	107-21-1	<2.0	<2.0
14	Ethylene glycol monoethyl ether	110-80-5	<2.0	<2.9
1	Ethylene glycol monoethyl ether acetate	111-55-9	<2.0	<2.0
16	Ethylene glycol monomethyl ether	109-86-4	<2.0	<2.0

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17	Ethylene glycol monomethyl ether acetate	110-49-6	< 2.0	<2.0
18	formaldehyde'	50-00-0	<2.0	<2.0
19	Hexane {n-}	110-54-3	<2.0	<2.0
20	Isophorone	78-59-1	<2.0	<2.0
21	Isopropanol	67-63-0	<2.0	<2.0
22	Methyl chloroform	71-55-6	<2.0	<2.0
23	Methylene chloride	75092	<2.0	<2.0
24	Methyl t-butyl ether	1634-04-4	<2.0	<2.0
25	Naphthalene	91-20-3	<2.0	<2.0
26	Phenol	108-95-2	<2.0	<2.0
27	Propylene glycol monomethyl ether	107-98-2	<2.0	<2.0
28	Styrene	100-42-5	<2.0	<2.0
29	Tetrachloroethylene	127-18-4	<2.0	<2.0
30	Toluene	108-88-3	<2.0	<2.0
31	Trichloroethylene	79-01-6	<2.0	<2.0
32	Vinyl acetate	108-05-4	<2.0	<2.0
33-35	Xylenes, technical mixture (m-, o-, p-xylene combined)	108-38-3 95-47-6 106-42-3	<2.0	<2.0

Table 4 VOCs detected above lower limits of quantitation in air samples at 96h

Compound Name	CAS No.	SURROGATE'		CREL (kg/m ³)'	CARB TAC'	PROP 65 LIST	Chamber Concentration (pg/m ³)	Emission Factor (kg/m ³ h)
Not detected	/	/		/	/	/	/	/

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Table 5 Top ten VOCs having the highest emission factors in 96h

Compound Name	CAS NO.	SURROGATE'	CREL (gg/m')	CARB TAC'	PROP 65 LIST'	Chamber Concentraiiion (pg/m')	Emission Factor (kg/m' h)
Not Detected	/	/	/	/	/	/	/

Remark:

1. Indicates which non-listed VDCs were quantified using surrogate compounds, all other compounds were quantified using pure compounds
2. Chronic Reference Exposure Level (CREL) as defined by California Office of Environmental Health Hazard Assessment.
3. Substance is listed on California Air Resource Board's (CARB) 7oxiC Air Contaminate (TAC) identification list.
4. 'Substance known to the state of California to cause cancer or reproductive toxicity according to California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)
5. # = indicates aldehydes identified and quantified by DNPH derivatization and HPLC/DAO analysis.
6. TVOC means sum of the concentrations of all identified and unidentified VOCs between and including n-pentane through n-heptadecane (i.e., Cr-Cost as measured by the GC/MS TIC method and expressed as a toluene equivalent value.
7. Detection limit of individual compound = 2.0 kg/m'
Detection limit of TVOC= 10.0 pg/m'
8. Test location: Central Chemical Lab of Intertek Testing Services Ltd., Wuxi
Address: No. 8, Fubei road, Xishan Economic Development Zone, Wuxi, Jiangsu, China

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7. Estimated Caricentration for different scenarios and evaluation of the requirement.

Table 6 Parameters to be used for estimation of VOC concentrations

Scenario	Room Size(m ³)	Wall coverings Area (m ²)	Effective outdoor air change rate (h ⁻¹)	Air Flow Rate (m ³ /h)
Standard school classroom	231	94.6	0.82	191
Private office	30.6	33.4	0.68	20.7
Single family residence	547	562	0.23	127

Remarks

The above parameters are cited from secdon 01350 table 4-2, 4-3, for Standard school classroom, and table 4-4, 4-5 for Private office, and tabk B-1, &2 for single family residence.

Table 7 Estimated Concentration of all Target VOCs for different scenarios and evaluation of the requirement

No.	Compound Name	CAS Number	Estimated oncentration {p g/m ³)			Allowable Concentration (µg/m ³)	Verdict (Pass/Fail)		
			SC	PO	R		S[PO	R
1	Acetaldehyde'	75-07s	WÆ	€3.2	*B.9	70	Pass	Pass	Pass
2	Benzene	7163•2	<1Ö	<3.2"	<8.9"	1.5	Pass	Pass	Pass
3	Carbon disulfide	75-15-0	<1Ö	<3.2	<8.9	400	Pass	Pass	Pæs
4	Carbon tetrachloride	56-23-5	<1Ö	<3.2	<8.9	20	Pass	Pass	Pæs
5	Chlorobenzene	108-90-7	std	<3.2	s8.9	500	Pass	Pass	Pas
6	Chloroform	67-66-3	<1Æ	<3.2	<8.9	150	pass	Pass	Pass
7	Dlchlorobenzene(:t,4-]	106-46-7	*tÖ	<3.2	<8.9	400	Pass	Pass	Pæs
8	Dfchloroethylene(1,1)	75-35-4	<lÆ	<3.2	<8.9	8S	Pass	Pass	Pass
9	Dimethylformamide (N,N-)	68-12-2	<1Æ	c3.2	<8.9	40	Pass	Pass	Pass
10	Dioxane {1,4-)	123-91-1	<16	<3.2	s8.9	1SCEI	Pass	Pass	Pæs
11	EpichTorohydrln	106-89-8	<1Ö	<3.3•	*8.9*	1.5	Pass	Pass	Pas
12	Ethylbentene	100-41-4	<lÖ	<3.2	*8.9	1CEXI	Pass	Pass	Pas
13	Ethylene glycol	1D7-21-1	< 6	c3.2	*8.9	200	Pass	Pass	Pæs
14	Ethylene glycol monoethyl ether	110-BSS	<16	<3.2	<8.9	35	Pass	Pass	Pass
15	Ethylene glycol monoethyl ether acetate	111-15-9	<16	<3.2	<8.9	150	Pass	Pass	Pæs

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16	Ethylene glycol monomethyl ether	109B6-4	<1.0	<3.2	<8.9	30	Pass	Pass	Pass
17	Ethylene glycol monomethyl ether acetate	110-49-6	<1.0	<3.2	<8.9	45	Pass	Pass	Pass
18	Formaldehyde ^e	50-00-0	1y.0	<3.2	<8.9	9	Pass	Pass	Pass
19	Hexane{n-}	110-54-3	<1.0	<3.2	<8.9	3500	Pass	Pass	Pass
20	Isophorone	78-59-1	<1.0	<3.2	<8.9	1000	Pass	Pass	Pass
21	Isopropanol	67-63-0	<1.0	<3.2	<8.9	3500	Pass	Pass	Pass
22	Methylchloroform	71-55-6	<1.0	<3.2	<8.9	500	Pass	Pass	Pass
23	Methylenechloride	75-09-2	<1.0	<3.2	<8.9	200	Pass	Pass	Pass
24	Methyl t-butyl ether	1634-04-4	<1.0	<3.2	<8.9	4000	Pass	Pass	Pass
25	Naphthalene	91-20-3	<1.0	<3.2	<8.9°	4.5	Pass	Pass	Pass
26	Phenol	108-95-2	<1.0	<3.2	<8.9	100	Pass	Pass	Pass
27	Propylene glycol monomethyl ether	207-98-2	<1.0	<3.2	<8.9	3500	Pass	Pass	Pass
28	Styrene	100-42-5	<1.0	<3.2	<8.9	450	Pass	Pass	Pass
29	Tetrachloroethylene	127-18-4	<1.0	<3.2	<8.9	17.5	Pass	Pass	Pass
30	Toluene	208-88-3	<1.0	<3.2	<8.9	y50	Pass	Pass	Pass
31	Trichloroethylene	79-01-6	<1.0	<3.2	<8.9	300	Pass	Pass	Pass
32	Vinylacetate	108-05-4	<1.0	<3.2	<8.9	100	Pass	Pass	Pass
33 ^{3S}	Xylenes, technical mixture {m-, o-, p-xylene combined)	108-3&3 ggqy-6 6-42-3	<1.0	<3.2	<8.9	350	Pass	Pass	Pass
36	TVOC	—	<5.0	<16.1	<44.3				

Remark:

1. The Allowable Concentration is cited from Section 01350 table 41, no requirement for TVOC.
- 2.*Individual VOC of concern is below lower limits of quantitation for modeled scenario.

Table 8 Estimated Concentration of non-listed VOCs for different scenarios

No.	Compound Name	CAS Number	Estimated concentration (kg/m ³)		
			SC	PO	R
1	Not Detected	/	/	/	/

Test Report

Original Issue Date: 2024-02-20

Intertek Report No. 240118P08SHF-001

Test Photo:



Original Issue Date: 2024 '02-20

Intertek Report No. 240118008SHF'OOH

Appendix A: Sample Received Photo



Revision:

240118006SH F-001	2024 -02-20	First issue