

TEST REPORT

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RENDERED TO
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PRODUCT EVALUATED: 7mm Widet Click Vinyl Flooring

EVALUATION PROPERTY: CDPH Specification 01350 v1.1: Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers v1.1

Report of for compliance with the applicable requirements of the following criteria: CDPH Specification 01350 v1.1: Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers v1.1.

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2 Introduction

Intertek has conducted testing for Cali Bamboo on 7mm Widet Click Vinyl Flooring. Testing was conducted following the standard methods of CDPH Specification 01350 v1.1: Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers v 1.1.

3 Test Samples

3.1. SAMPLE SELECTION

Two samples of 7mm Widet Click Vinyl Flooring vinyl flooring was collected by Cali Bamboo, at 6675 Mesa Ridge Rd, #100, San Diego, CA-9212 by Pallavi Adyanthaya on Wednesday, October 24, 2016. The samples were simulated brown wood pattern. The sample was wrapped in two layers of Aluminum foil and sealed with tape. The sample was shipped on October 24, 2017, and arrived at the lab on October 28, 2016. The Middleton Lab ID Tracking number: MID1610281433-001

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

The samples were cut by the client to about 12.44 x 12.44 inch before shipping. One sample was placed onto a stainless steel and the edges of the sample were taped with low VOC aluminum tape. The sample thickness was about 7 mm thick.

The sample was immediately transferred to the environmental chamber and the date and time recorded. The sample was placed directly on the floor of the square chamber. See appendix 1 for the photo of the sample.

4 Testing and Evaluation Methods

Testing was in accordance with CDPH Specification 01350 v1.1: Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers v1.1.

Testing for the private office, classroom scenario and new single-family residence using 89,2 m² in classroom, 11.1 m² in the private office, and 211 m² in the new single-family residence. The chamber volume is 224 L with an inlet flow of 224 L/hour. The load factor was 0.445 m²/m³. The average temperature range was 23 °C +/- 2 and 50 +/- 5 %RH. The conditioning was from 10 days 11/3/16 to 11/13/16. The sampling started on 10/14/16 and completed 10/17/16. All GC and LC testing was completed by 10/21/2016.

The VOC for the LC sampling was collected on Sep-Pak DNPH-Silica Cartridges. Collection was performed at 50 ml/min for 20 minutes using a vacuum pump with a mass flow meter. The Sep-Pak DNPH-Silica Cartridges were stored in the refrigerator until eluted according to the manufactures instructions into 5 ml of ACN. The samples were collected at 24, 48 and 96 hours within the time limitations specified in the standard. Only Formaldehyde is determined at the 24 and 48 hour time point. The Sep-Pak DNPH-Silica Cartridges samples were run on Shimadzu HPLC system using a two Supelcosil LC-18 25cm x4,6 mm, 5um. An isocratic profile was used to run the standard Aldehyde/Ketone –DNPH Mix with 68% ACN at 1.2 ml/min.

No Target CREL VOCs of Formaldehyde CAS# 50-00-0 were found during testing. Quantification was done using the standard with minimum of a 5 point curve. A check standard was run during the samples to verify system suitability. The results of the findings can be found in Section 4.2.

The VOC for the GC/MS was collected on Thermo Desorption (TD) tubes Atas GL (A100054) fritted linters filled with Tenax GR packing material. Collection was performed at 50 ml/min for 20 minutes using a vacuum pump with a mass flow meter. The TD tubes were verified to be clean before testing. The samples were collected at 24, 48, and 96 hours within the time limitations specified in the standard, and tested the same day. The samples were run on Shimadzu GC/MS with an ATAS GL High Performance injector for the TD tubes. A Restek Rtx-VMS 40 meter, 0.18 mm ID, 1um df was used.

Direct injection of toluene was used with at least 5 different concentrations was used for determining the concentration of the unknown VOCs. The LOQ for toluene was determined to be 0.008044 ug/m³. Standard Curves diluted with toluene were performed in triplicate for each standard. The standard was run with the same GC temperature profile as the TD tubes.

4.1. Deviation from Standard Method

No deviation to the standard.

4.2. RESULTS AND OBSERVATIONS

	Private Office	Standard Classroom	Single family home
Product Quantities:	Vinyl Flooring	Vinyl Flooring	Vinyl Flooring
Sampling Time (hrs):	24 hr	24 hr	24 hr
Inlet flow rate Q (m ³ h ⁻¹):	0.22415	0.22415	0.22415
Exposed projected surface area of the test specimen in the chamber A _c (m ²):	0.09984	0.09984	0.09984
Flow rate of the outside ventilation are Q _B (m ³ h ⁻¹):	20.7	191	127
Exposed surface area of the installed material in the building A _B (m ²):	11.1	89.2	211
Area Specific flow rate q _A (m ² h ⁻¹)= Q _B /A _B	1.8649	2.1413	0.6019

								Testing Scenario:	Private Office	Standard Classroom	Single family home
Product Quantities:								Vinyl Flooring	Vinyl Flooring	Vinyl Flooring	
Sampling Time (hrs):								24 hr	24 hr	24 hr	
Compound name	CAS Number	Retention Time	Area Count Sample	Area Count Background	Chamber Concentration C _t	Chamber background concentration	*Area Specific Emissions Factor at the sampling time (EF _s)	Area Specific Estimated Building Concentration C _B for Target VOC using EF _s	Area Specific Estimated Building Concentration C _B for Target VOC using EF _s	Area Specific Estimated Building Concentration C _B for Target VOC using EF _s	
		minutes	No units	No units	(ug m ⁻³)	(ug m ⁻³)	(ug m ⁻² h ⁻¹)	(ug m ⁻³)	(ug m ⁻³)	(ug m ⁻³)	
Unknown at 9.317	na	na	383,576	0	12.093	0.000	27.1499	14.5586	6.7991	11.2962	
Unknown at 10.136	na	na	368,005	0	11.869	0.000	26.6462	14.2855	6.6730	11.0866	
							53.7961	28.8472	13.4721	22.3827	

								Testing Scenario:	Private Office	Standard Classroom	Single family home
Product Quantities:								Vinyl Flooring	Vinyl Flooring	Vinyl Flooring	
Sampling Time (hrs):								48 hr	48 hr	48 hr	
Compound name	CAS Number	Retention Time	Area Count Sample	Area Count Background	Chamber Concentration C _t	Chamber background concentration	*Area Specific Emissions Factor at the sampling time (EF _s)	Area Specific Estimated Building Concentration C _B for Target VOC using EF _s	Area Specific Estimated Building Concentration C _B for Target VOC using EF _s	Area Specific Estimated Building Concentration C _B for Target VOC using EF _s	
		minutes	No units	No units	(ug m ⁻³)	(ug m ⁻³)	(ug m ⁻² h ⁻¹)	(ug m ⁻³)	(ug m ⁻³)	(ug m ⁻³)	
Unknown at 9.3	na	na	262,426	0	10.347	0	23.2285	12.4559	5.8171	9.8646	
Unknown at 10.13	na	na	246,838	0	10.123	0	22.7243	12.1855	5.6908	9.4548	
Total							46.9528	24.6414	11.5079	19.1194	

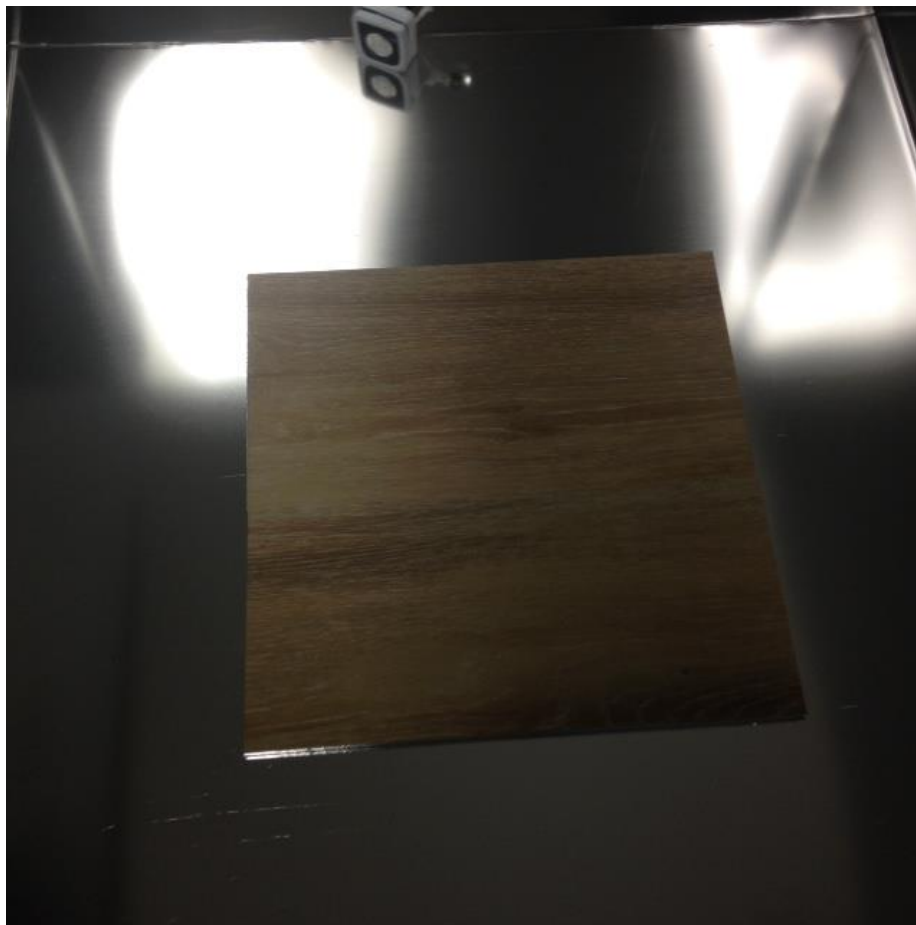
							Testing Scenario:	Private Office	Standard Classroom	Single family home
							Product Quantities:	Vinyl Flooring	Vinyl Flooring	Vinyl Flooring
							Sampling Time (hrs):	96 hr	96 hr	96 hr
Compound name	CAS Number number	Retention Time minutes	Area Count Sample No units	Area Count Background No units	Chamber Concentration Ct (ug m ⁻³)	Chamber background concentration (ug m ⁻³)	*Area Specific Emissions Factor at the sampling time (EF _s) (ug m ⁻² hr ⁻¹)	Area Specific Estimated Building Concentration C _b for Target VOC using EF _s (ug m ⁻³)	Area Specific Estimated Building Concentration C _b for Target VOC using EF _s (ug m ⁻³)	Area Specific Estimated Building Concentration C _b for Target VOC using EF _s (ug m ⁻³)
Unknown at 9.29	na	na	698791	0	16.6353	0.0000	37.3440	20.0251	9.3520	15.5376
Unknown at 10.12	na	na	662836	0	16.1172	0.0000	36.1810	19.4014	9.0608	15.0537
Total							73.5250	39.4264	18.4128	30.5913

4.3. EXAMINATION OF RESULTS

No Known VOCs were found by GC/MS analysis or HPLC analysis. Two Unknowns were found by GC/MS at levels of about 17 ug/m³ from the chamber at the 96 hour time point.

5 Appendix A

Photo of tested sample:



6 Conclusion

Intertek has conducted testing for Cali Bamboo LLC on 7mm Widet Click Vinyl Flooring, to evaluate CDPH Specification 01350 v1.1; Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers v1.1.

7mm Widet Click Vinyl Flooring complies with limits specified in CDPH Specification 01350 v1.1 February 2010 for private office, Classroom and single family home.

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

INTERTEK
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7 Revision Summary

DATE	SUMMARY
Nov 22, 2016	Original date of report
