

Released by ULE Guangzhou Laboratory
Date Issued: July 6, 2018
Product ID #: 1000447631-1668326
Test Report #: 1000447631-1668326
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GREENGUARD CERTIFICATION PROGRAM PROFILE STUDY TEST REPORT					
Product Description		S3 - 7.0MM SPC WITH 0.5MM WEARABLE LAYER AND 1.5MM EVA UNDERLAYMENT, UNICLICK LOCK SYSTEM			
Category		FLOORING			
SUMMARY		Environment	TVOC	Formaldehyde	Total Aldehydes
	GREENGUARD	Office	✓	✓	✓
	GREENGUARD Gold	Office	✓	✓	✓
		Classroom	✓	✓	✓
✓ - meets criteria; ✓* - meets within 25%; X - over by more than 25% of criteria					

Customer Information	Exclusive Importer / Distributor UB Trading Pty Ltd. 13 Kirkton Place Edensor Park, NSW 2176, AUSTRALIA E: pperak@ubtrading.com.au
Laboratory Approval	 Baud Qiu Operations Manager Greater China

SAMPLE INFORMATION	
Testing Laboratory Location	ULE Guangzhou Laboratory 1F-3F, Building A1, Nansha Science and Technology Innovation Center No. 25 South Huanshi Avenue, Nansha District, Guangzhou, CHINA
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.
Date Received	June 19, 2018
Test Period	June 27, 2018 - June 28, 2018
Area	one-sided area = 0.0365 m ²
Chamber Volume	0.0862 m ³
Product Loading	0.42 m ² /m ³
Test Conditions	1.00 ± 0.05 ACH 50% RH ± 5% RH 23° C ± 1° C

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.

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RESULTS				
Analyte	24 Hour Emission Factor ($\mu\text{g}/\text{m}^2\cdot\text{hr}$)	168 Hour Predicted Concentration		
		GREENGUARD	GREENGUARD Gold	
			Office	Classroom
TVOC	59.1	0.015 mg/m^3	0.015 mg/m^3	0.014 mg/m^3
Formaldehyde	9.2	0.002 ppm	0.0019 ppm	0.0017 ppm
Total Aldehydes	14.4	0.003 ppm	0.003 ppm	0.002 ppm

MODELING PREDICTED CONCENTRATION PARAMETERS								
Certification Program	Environment Basis	Product Usage	Surface Area (m^2)	Room Volume (m^3)	ACH (1/hr)	Assumed Decay Parameters		
						k_T	k_F	k_A
GREENGUARD and GREENGUARD Gold Office	CDPH/EHLB/Standard Method	Floor	11.1	30.6	0.68	0.005	0.005	0.005
GREENGUARD Gold Classroom	CDPH/EHLB/Standard Method	Floor	89.2	231	0.82	0.005	0.005	0.005

IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS AT 24 ELAPSED EXPOSURE HOURS		
CAS Number	Compound	Emission Factor ($\mu\text{g}/\text{m}^2\cdot\text{hr}$)
107-98-2	2-Propanol, 1-methoxy- [†]	24.6
71-36-3	1-Butanol (N-Butyl alcohol) [†]	16.0
13429-07-7	2-Propanol, 1-(2-methoxypropoxy)-*	13.3
108-88-3	Toluene (Methylbenzene) [†]	9.0
104-76-7	1-Hexanol, 2-ethyl [†]	8.1
20324-32-7	2-Propanol, 1-(2-methoxy-1-methylethoxy)	7.2
7473-98-5	2-Hydroxy-iso-butyrophenone*	5.5

*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.

TARGET LIST ALDEHYDES AT 24 ELAPSED EXPOSURE HOURS		
CAS Number	Compound	Emission Factor ($\mu\text{g}/\text{m}^2\cdot\text{hr}$)
4170-30-3	2-Butenal	BQL
75-07-0	Acetaldehyde	5.2
100-52-7	Benzaldehyde	BQL
5779-94-2	Benzaldehyde, 2,5-dimethyl	BQL
529-20-4	Benzaldehyde, 2-methyl	BQL

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TARGET LIST ALDEHYDES AT 24 ELAPSED EXPOSURE HOURS		
CAS Number	Compound	Emission Factor (µg/m ² •hr)
620-23-5 /104-87-0	Benzaldehyde, 3- and/or 4-methyl	BQL
123-72-8	Butanal	BQL
590-86-3	Butanal, 3-methyl	BQL
50-00-0	Formaldehyde	9.2
66-25-1	Hexanal	BQL
110-62-3	Pentanal	BQL
123-38-6	Propanal	BQL

Analyses based on EPA Compendium Method TO-17 and ASTM D 6196 for VOCs by thermal desorption followed by gas chromatography/mass spectrometry (TD/GC/MS), and EPA Method TO-11A and ASTM D 5197 for selected aldehydes by high performance liquid chromatography (HPLC).

BQL denotes below quantifiable level of 0.04 µg based on a standard 18 L air collection volume for TVOC and individual VOCs and 0.1 µg based on a standard 45 L air collection volume for formaldehyde and total aldehydes.

This test data is provided for general informational purposes only. The data indicate the level of emissions from the designated product and how they compare to the emission criteria of the GREENGUARD and GREENGUARD Gold standards. This data does not imply that the product has been qualified to meet the requirements of the GREENGUARD Certification program nor does it imply that the product is or is not certified by the GREENGUARD Certification program.

Testing followed UL 2821, "GREENGUARD Certification Program Method for Measuring and Evaluating Chemical Emissions From Building Materials, Finishes and Furnishings Using Dynamic Environmental Chambers" 2013.

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.

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