

FSorb® Acoustic wall and ceiling panels are thermally bonded and 100% polyester fiber products. There are NO adhesives, paints, coatings, VOC's, formaldehyde, fiberglass insulation, wood, agriculture, or paper products.

## PUBLICLY DISCLOSED HEALTH PRODUCT DECLARATION:

FSorb® has declare labels for each location of manufacture and are located on the website and provided upon request. <a href="https://www.f-sorb.com/fsorb-products">https://www.f-sorb.com/fsorb-products</a>



**CONTACT:** 

Tel: 844-313-7672 or 425-881-0888

Fax: 425-881-1114

# PAINTS, COATINGS, ADHESIVES, AND SEALANTS

NO paints, coatings, adhesives or sealants are used to manufacture this product. It is thermally bonded.

MATERIAL NAME: Polyester

CAS NUMBER #: 68604-67-1

PROPORTION: 100%

Contains o.o VOC's

#### RECYCLED CONTENT

The recycled content varies depending on availability of recycled PET pellets. The post-consumer recycled content ranges between 65% - 81% depending on color and location.

#### **SOURCING OF RAW MATERIALS**

The recycled polyester comes from PET plastic pellets which are sourced from a variety of locations near the manufacturer and varies depending on availability. The raw material polyester pellets are sourced based on commodity pricing and availability.

#### MANUFACTURING LOCATION

Products are manufactured in one of the following locations:

- 1.) Los Angeles
- 2.) Gyeonggi, Korea

Final assembly for specialty products:

1.) Redmond, Washington

#### OTHER ECOLOGICAL INFORMATION

FSorb® does not contain any Ozone depleting chemicals, and is not classified as a hazardous air pollutant.

#### **FND OF LIFF CONSIDERATIONS**

FSorb® products are recyclable and only made of recycled PET and regular polyester. It can be recycled at any polyester recycling facility. FSorb® is working on a product take-back program to create closed-loop recycling for a future product line.





#### **FSorb** Nut Shell, LLC. dba F-Sorb

Final Assembly: Redmond, Washington, USA

**Life Expectancy:** Life time Year(s)

End of Life Options: Salvageable/Reusable in its Entirety,

Recyclable (100%)

#### **Ingredients:**

Polyethylene terephthalate, PET: Polyethylene Terephthalate; Flame Retardants: Phosphonic acid, methyl-, bis[(5-ethyl-2methyl-2,2-dioxido-1,3,2-dioxaphosphorinan-5-yl)methyl] ester, mixt. with (5-ethyl-2-methyl-2-oxido-1,3,2-dioxaphosphorinan-5yl)methyl methyl methylphosphonate; Tints & Etc: 1,3-Benzenedicarboxylic acid; 1-Octadecanol; 2-Naphthalenecarboxamide, N,N'-(2,5-dichloro-1,4-phenylene) bis[4-[(2,5-dichlorophenyl)azo]-3-hydroxy -; 2-Naphthalenol, 1-[[4-[(dimethylphenyl)azo]dimethylphenyl]azo]-; Benzoxazole, 2,2'-(1,2-ethenediyldi-4,1-phenylene)bis-; Blue; Butanamide, 2,2'-[(3,3'-dichloro[1,1'- biphenyl]-4,4'-diyl)bis(azo)]bis[N-(2methylphenyl )-3-oxo-; C. I. Pigment Blue 15; C.I. Pigment Green 7; Carbon black; Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-, (1,3-dihydro-1,3-dioxo-2H-isoindol-2yl)methyl derivs.; Diindolo[3,2-b:3',2'-m]triphenodioxazine, 8,18dichloro-5,15-diethyl-5,15-dihydro-; Fe2O3; Hexadecanoic acid, 2ethylhexyl ester; Scarlet Red; Titanium dioxide; Water; Yellow

#### Living Building Challenge Criteria: Compliant

#### I-13 Red List:

■ LBC Red List Free

☐ LBC Red List Approved

□ Declared

% Disclosed: 100% at 100ppm **VOC Content: Not Applicable** 

I-10 Interior Performance: Not Applicable I-14 Responsible Sourcing: Not Applicable

FSB-0002 EXP. 01 FEB 2024 Original Issue Date: 2021

Date Issued: November 26, 2018
Product ID #: 1000556059-1886476
Test Report #: 1000556059-1886476

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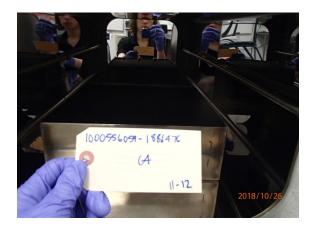


INDOOR AIR (	QUALITY EVALUATION FOLLOWING THE CDPH/EHLB/STANDARD METHOD			
Product Description	2" Black, FSorb Acoustic Panel			
Customer Information	NUT SHELL LLC YANCY WRIGHT 15125 NE 90TH STREET REDMOND, WA 98052			
Testing Laboratory	UL Environment • 2211 Newmarket Parkwa	ay • Marietta GA 30067-9399 USA		
Product Category	Building Products			
Product Sub-Category	Wall Cladding			
Date Received	October 12, 2018			
Test Description	The product was received by UL Environr customer. The package was visually in environment immediately following sample product was unpackaged, prepared for the expose the top surface side only. The same chamber, and tested according to the specific	inspected and stored in a controlled e check-in. Just prior to loading, the required loading, and placed in a tray to ple was placed inside the environmental		
Test Date				
Product Area Exposed	one-sided area = 0.0853 m <sup>2</sup>			
Chamber Volume	0.0858 m³			
Product Loading Ratio	0.99 m²/m³			
Test Chamber Conditions	Air change rate: 1.00 ± 0.05 1/h Inlet air flow rate: 0.0858 ± 0.004 m³/h  Temperature: 22.3°C - 22.9°C* Relative Humidity: 50% RH ± 5%			
Test Method	CDPH - CA Section 01350 Standard Method for the Chemical Emissions from Indoor Sources using E			
Released by	Allyson McFry Chemistry Laboratory Director			

<sup>\*</sup>The temperature range specification is  $23^{\circ}C \pm 1^{\circ}$ . 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.

This test is accredited under the laboratory's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation AT-1297.

#### **PHOTOGRAPH OF SAMPLE**



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#### **RESULTS SUMMARY**

Product Des	cription	2" Blad	ck, FSorb Acoustic	Panel		
Environment	Prod Usa		Product Surface Area	Room Volume	Ventilation Rate (ACH)	Product Compliance?
Classroom	Wa	ıll	94.6 m²	231 m³	0.82	Yes
Office	Wa	all	33.4 m²	30.6 m³	0.68	Yes

#### PROJECT DESCRIPTION

The product was monitored for emissions of TVOC, individual VOCs, formaldehyde and other aldehydes over the 96-hour test period. Measurements were made and predicted exposures were calculated according to the CA Section 01350 protocol. As specified in this protocol, the results at 96 hours, after 10 days of conditioning, were compared to ½ (one-half) the current Chronic Reference Exposure Levels (CRELs), as adopted from the California OEHHA list. All identified VOCs were also compared to the California-EPA OEHHA Proposition 65 list and the California-EPA Air Resource Board list of Toxic Air Contaminants (TACs).

#### Report Outline:

Table 1	Comparison of Data To Method Requirements
Table 2	Chamber Concentrations and Emission Factors
Table 3	Most Abundant Compounds
Table 4	VOC Predicted Air Concentrations And Regulatory Information
Chain of Custody	Chain of Custody

For UL Environment's technical references and resources <u>click here</u> or https://industries.ul.com/wp-content/uploads/sites/2/2018/02/Technical-references-and-resources.pdf

For Product Evaluation Methodologies information <u>click here</u> or https://industries.ul.com/wp-

content/uploads/sites/2/2018/03/ProductEvaluationMethodologies-PE.pdf

For Quality Control Program or Environmental Chamber Evaluations information <u>click here</u> or https://industries.ul.com/wp-content/uploads/sites/2/2018/02/Quality-Control-Procedures.pdf

For RSD, Quality Assurance Report or other quality documents, Request here or contact ULE.

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Date Issued: November 26, 2018
Product ID #: 1000556059-1886476
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# TABLE 1

Produ	Product Description		2" Black, FSorb Acoustic Pane	<sup>o</sup> anel			
COMPARISON O	F DATA TO	METHOD	COMPARISON OF DATA TO METHOD REQUIREMENTS AT 96 HOURS FOLLOWING	AT 96 HOURS FO		10 DAYS OF CONDITIONING	NG
Compound	CAS Number	1/2 CREL (µg/m³)	Chamber Concentration (µg/m³)	Emission Factor <sup>††</sup> (µg/m²∙hr)	Classroom Predicted Concentration (µg/m³)**	Office Predicted Concentration (µg/m³)**	Meets ½ CREL? (Classroom/ Office)
Acetaldehyde	75-07-0	140	BQL	BQL			Yes
Benzene	71-43-2	1.5	BQL	BQL			Yes
Carbon disulfide	75-15-0	400	BQL	BQL			Yes
Carbon tetrachloride	56-23-5	20	BQL	BQL			Yes
Chlorobenzene	108-90-7	500	BQL	BQL			Yes
Chloroform	67-66-3	150	BQL	BQL			Yes
Dichlorobenzene (1,4-)	106-46-7	400	BQL	BQL			Yes
Dichloroethylene (1,1)	75-35-4	35	BQL	BQL			Yes
Dimethylformamide (N,N-)	68-12-2	40	BQL	BQL			Yes
Dioxane (1,4-)	123-91-1	1,500	BQL	BQL			Yes
Epichlorohydrin*	106-89-8	1.5	BQL	BQL			Yes
Ethylbenzene	100-41-4	1,000	BQL	BQL			Yes
Ethylene glycol	107-21-1	200	BQL	BQL			Yes
Ethylene glycol monoethyl ether acetate	111-15-9	150	BQL	BQL			Yes
Ethylene glycol monoethyl ether	110-80-5	35	BQL	BQL			Yes
Ethylene glycol monomethyl ether acetate	110-49-6	45	BQL	BQL			Yes
Ethylene glycol monomethyl ether	109-86-4	30	BQL	BQL			Yes
Formaldehyde	50-00-0	9***	BQL	BQL			Yes

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Produ	ct Descripti	on 2" Bla	Product Description 2" Black, FSorb Acoustic Panel	Panel			
COMPARISON	OF DATA TO	METHOD	COMPARISON OF DATA TO METHOD REQUIREMENTS AT 96 HOURS FOLLOWIN	AT 96 HOURS FO	DLLOWING 10 DAY	G 10 DAYS OF CONDITIONING	NG
Compound	CAS Number	½ CREL (μg/m³)	Chamber Concentration (µg/m³)	Emission Factor <sup>††</sup> (µg/m²•hr)	Classroom Predicted Concentration (µg/m³)**	Office Predicted Concentration (µg/m³)**	Meets 1/2 CREL? (Classroom/ Office)
Hexane (n-)	110-54-3	3,500	BQL	BQL			Yes
Isophorone	78-59-1	1,000	BQL	BQL			Yes
Isopropanol	67-63-0	3,500	BQL	BQL			Yes
Methyl chloroform	71-55-6	500	BQL	BQL			Yes
Methyl t-butyl ether	1634-04-4	4,000	BQL	BQL			Yes
Methylene chloride	75-09-2	200	BQL	BQL			Yes
Naphthalene	91-20-3	4.5	BQL	BQL			Yes

BQL denotes below quantifiable level of 0.04 µg for individual VOCs, with the exceptions benzene and epichlorohydrin which have a QL of 0.02 µg, based on a standard 18 L air collection

Xylenes (m-, o-, Vinyl acetate

<del>ٻ</del>

1330-20-7 108-05-4

350 100 300 150

BQL BQL BQL BQL BQL

BQL BQL BQL BQL BQL

Yes

Yes

Yes Yes Trichloroethylene

Toluene

108-88-3 127-18-4 100-42-5

79-01-6

(perchloroethylene) Tetrachloroethylene Styrene

monomethyl ether Propylene glycol Phenol Naphthalene

108-95-2

100

BQL

107-98-2

3,500

450

BQL BQL

BQL BQL BQL

Yes

Yes

Yes

Yes

8

<sup>&</sup>lt;sup>††</sup>The emission factor (EF) is calculated from the chamber concentration (CC), the chamber air change rate (N<sub>C</sub>), the chamber volume (V<sub>C</sub>), and the product area exposed in the chamber (A<sub>C</sub>) as: EF = (CC\*V<sub>C</sub>\*N<sub>C</sub>)/A<sub>C</sub>.

<sup>\*\*</sup>The predicted building exposure concentration (BC) is calculated from the emission factor (EF), the building air change rate (N<sub>B</sub>), the building room volume (V<sub>B</sub>), and the product area exposed in the building room (A<sub>B</sub>) as: BC = (EF\*A<sub>B</sub>)/(V<sub>B</sub>\*N<sub>B</sub>). For more information on Predicted Concentration modeling parameters, <u>click here</u>.

\*\*\*Guidance value per CA Standard Method

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#### **TABLE 2**

Product Description	2" Black, FSorb Acoustic Panel				
FOR TVOC AND	NCENTRATIONS AND EMISSION FORMALDEHYDE AT 24, 48, ANI WING 10 DAYS OF CONDITIONII	D 96 HOURS			
Elapsed Exposure Hour After 10 Days Conditioning	Chamber Concentration (μg/m³)	Emission Factor <sup>††</sup> (μg/m²•hr)			
TVOC†					
24	BQL	BQL			
48	BQL	BQL			
96	96 BQL BQL				
Formaldehyde <sup>‡</sup>					
24	BQL	BQL			
48	BQL	BQL			
96	BQL	BQL			

BQL denotes below quantifiable level of 2 µg/m<sup>3</sup>.

Exposure hours are nominal (± 1 hour).

†Defined as the sum of those VOCs that elute between the retention times of n-hexane (C<sub>6</sub>) and n-hexadecane (C<sub>16</sub>) on a non-polar capillary GC column quantified based on a toluene response factor.

† Compound identified and quantified by DNPH derivitization and HPLC/UV analysis.

††The emission factor (EF) is calculated from the chamber concentration (CC), the chamber air change rate (N<sub>c</sub>), the chamber volume (V<sub>c</sub>),

and the product area exposed in the chamber ( $A_C$ ) as: EF = ( $CC^*V_C^*N_C$ )/ $A_C$ .

Date Issued: November 26, 2018 Product ID #: 1000556059-1886476 Test Report #: 1000556059-1886476

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#### TABLE 3

Product Description 2" Black, FSorb Acoustic Panel TEN MOST ABUNDANT IDENTIFIED INDIVIDUAL **VOLATILE ORGANIC COMPOUNDS (VOCs) AND/OR ALDEHYDES** AT 96 HOURS FOLLOWING 10 DAYS OF CONDITIONING **Calculated Predicted** Chamber **Emission CAS Exposure Concentration\*\*** Compound Factor<sup>††</sup> Concentration Number  $(\mu g/m^3)$ (µg/m³) (µg/m<sup>2</sup>•hr) Classroom Office TVOC<sup>‡‡</sup> **BQL BQL** none

Exposure hours are nominal (± 1 hour).

VOC data obtained by scanning GC/MS; identification of compound made by retention time and mass spectral characteristics.

<sup>†</sup>Quantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene.

<sup>\*</sup>Identification based on NIST mass spectral database only.

<sup>&</sup>lt;sup>‡</sup>Compound identified and quantified by DNPH derivitization and HPLC/UV analysis.

<sup>&</sup>lt;sup>††</sup>The emission factor (EF) is calculated from the chamber concentration (CC), the chamber air change rate (N<sub>C</sub>), the chamber volume (V<sub>C</sub>), and the product area exposed in the chamber  $(A_C)$  as: EF =  $(CC^*V_C^*N_C)/A_C$ .

<sup>&</sup>lt;sup>‡‡</sup>Defined as the sum of those VOCs that elute between the retention times of n-hexane (C<sub>6</sub>) and n-hexadecane (C<sub>16</sub>) on a non-polar capillary GC column quantified based on a toluene response factor.

<sup>\*\*</sup>The predicted building exposure concentration (BC) is calculated from the emission factor (EF), the building air change rate (N<sub>B</sub>), the building room volume  $(V_B)$ , and the product area exposed in the building room  $(A_B)$  as: BC =  $(EF^*A_B)/(V_B^*N_B)$ . For more information on Predicted Concentration modeling parameters, click here.

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# TABLE 4

1		Number	CAS			Pro
none		Compound	•		VOC	Product Description 2" Black, FSorb Acoustic Panel
		und	•		PREDICTED / AT 96 H	2" Black, FSort
!		Concentration (µg/m³)	Chamber		AIR CONCENT	o Acoustic Panel
!		Factor <sup>††</sup> (µg/m²•hr)	Emission		RATIONS AN WING 10 DAY	
-	Classroom	юн)	Concen	Predicted Exposure	VOC PREDICTED AIR CONCENTRATIONS AND REGULATORY INFORMATION AT 96 HOURS FOLLOWING 10 DAYS OF CONDITIONING	
1	Office	(µg/m³)	Concentration**	Evnosiiro	Y INFORMATIC	
1	65	CA PROP		✓ Indic	Ž	
-	IOXIC	CA AIR	On List	✓ Indicates Presence		
1		CREL		ence		

<sup>&</sup>lt;sup>†</sup>Quantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene. <sup>‡</sup>Compound identified and quantified by DNPH derivitization and HPLC/UV analysis.

# CAL Toxic Air Contaminant:

Substances identified as Toxic Air Contaminants, known to be emitted in California, with a full set of health values reviewed by the Scientific Review Panel.
 Substances identified as Toxic Air Contaminants, known to be emitted in California, with one or more health values under development by the Office of Environmental Health Hazard Assessment for review by the Scientific Review Panel.

IIB) Substances NOT identified as Toxic Air Contaminants, known to be emitted in California, with one or more health values under development by the Office of Environmental Health Hazard Assessment for review by the Scientific Review Panel

III) Substances known to be emitted in California, and are NOMINATED for development of health values or additional health values

VA) Substance identified as Toxic Air Contaminants, known to be emitted in California, and are TO BE EVALUATED for entry into Category III.

Spots" Program and the California Toxic Release Inventory. IVB) Substance NOT identified as Toxic Air Contaminants, known to be emitted in California, and are TO BE EVALUATED for entry into Category III.

V) Substance identified as Toxic Air Contaminants, and NOT KNOWN TO BE EMITTED from stationary source facilities in California based on information from the AB 2588 Air Toxic "Hot

VI) Substances identified as Toxic Air Contaminants, NOT KNOWN TO BE EMITTED from stationary source facilities in California, and are active ingredients in pesticides in California

Chronic REL: California Office of Environmental Health Hazard Assessment (OEHHA), Chronic Reference Exposure Levels ✓ = Found in Listing

The emission factor (EF) is calculated from the chamber concentration (CC), the chamber air change rate (N<sub>C</sub>), the chamber volume (V<sub>C</sub>), and the product area exposed in the chamber (A<sub>C</sub>) as:  $EF = (CC*V_c*N_c)/A_c$ .

in the building room  $(A_B)$  as: BC =  $(EF^*A_B)/(V_B^*N_B)$ . For more information on Predicted Concentration modeling parameters, click here. \*\*The predicted building exposure concentration (BC) is calculated from the emission factor (EF), the building air change rate (N<sub>B</sub>), the building room volume (V<sub>B</sub>), and the product area exposed CAL Prop. 65: California Health and Welfare Agency, Proposition 65 Chemicals

<sup>1 =</sup> known to cause cancer

<sup>2 =</sup> known to cause reproductive toxicity

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**Product Description** 2" Black, FSorb Acoustic Panel

#### **CHAIN OF CUSTODY**

	1506 271	76 Description 2 Black, FSorb Acou	ustic Panel
FOR INTERNAL USE ONLY	15 2 10 10 10	Test Inf	
	Proposal # Octobe 12529087	Specialized Test fc	Aurora Project No.: 1000556059 Order No.: 12529087
CUSUCE105	RUSH (Confirm with Account Manager prior to submitting product)	CA 01350 CDPH/E 2018-0CT-24 06:8	50:34 PM Oracle Project No.: 4788693274
Project Frounds # 200 - 88647	24 Hr TVOC with Formaldehyde	ANSI/BIFMA M7.1	
Category Building Products	24 Hr TVOC & IVOCs with Formaldehyde	Other (Specify test method, non-standard same products, etc.):  CDPH 1.2 VCC Test	ple preparation, modeling parameters, application rate for we
Subcategory Cladding	GREENGUARD Screening Test (24 Hr TVOC, IVOCs, and Aldehydes w/modeling)	DEPT DEPT DE	
		and Contact Details	Vasaculation
Company Name	Nut Shell UC, doa F-sorb	Contact Name	Yancy wright
Street Address	1515 NE 9071 St.	Title	USED Specialist Sustaincualit
City, State/Province, Zip/Postal Code	Redmond WA 98052	Phone Number	(181) 510-6701
Country	U.S.A.	E-Mail Address	Yancy ef-sorb.com
	1 2	Product Collection Location	Redmond, WA
Sample ID (Used in Report)	2" Black, Fsorb Aroustic Panel		
Product Commercial Name	F-SONO	Product Collection Date/Time (mm/dd/yyyy/hh:mm)	1011018 4:15 p.m.
Manufacturer's Identification Number	B20S4B 0.002	Product Collected By	AJ Tangeman
Manufactured Date (mm/dd/yyyy)	2018	Number of Product Pieces ting Instructions	4
Beturn Product / Peturn Shinner and Ma	anufacturer's Shipping Account # must be provided for product re		Modern Discard product after testing
Return Shipper	Noneed to return	Manufacturer's Shipping Acct #	0/
Packed By	Thorseen to retent	Carrier	00
Ship Date (mm/dd/yyyy)	17/11/18	Air Bill # /ZA	1/495019924 4861
	Signature	Tracking Details	
Relinquished By (Manufacturer)	FSOD	Date & Time (mm/dd/yyyy/hh:mm)	10/11/18 11:26am.
Signature	brutte		
No.	aboutory Receiving De	tails - FOR INTERNAL USE ONLY	18/12/10 12/3-AN
Received by (Laboratory)	() NATIO	Date & Time (mm/dd/yyyy/hh:mm)	10/12/18 10, 20H12
Signature	124 1320	Chicago Danhago Natao	
Types of Containers	RALL WIND	Shipping Package Notes	
Condition of Shipping Package	Undamaged Damaged	Product Condition Notes	
Condition of Product	AcceptableUnacceptable		

# SUPPLEMENTAL VOC EMISSION RESULTS COMPARISON TO STANDARD



#### **VOC EMISSION RESULTS COMPARISON TO STANDARD**

Standard referenced: CDPH/EHLB/Standard Method V1.2 (January 2017) "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers" (aka CA Section 01350).

#### PRODUCT SAMPLE INFORMATION

Manufacturer	Nut Shell LLC
Product Description	2" Black, FSorb Acoustic Panel
Product Type	Building Products
Sample Identification	UL Environment's 1000556059-1886476
Manufactured Date	Not Provided
Test Completed on	November 9, 2018
UL Environment Report #	1000556059-1886476 / Report Date: November 19, 2018
Expiration Date	November 19, 2019

#### TEST RESULTS COMPARISION TO STANDARD CRITERIA

Environment	Classro	oom	0	ffice
Surface Area	94.6 n	n²	33	.4 m²
	Criterion	Meets?	Criterion	Meets?
Individual VOC	≤ ½ REL	Yes	≤½ REL	Yes
Formaldehyde	≤ 9.0 µg/m³	Yes	≤ 9.0 µg/m³	Yes

Environment	Classroom	Office
Surface Area	94.6 m²	33.4 m²
TVOC	TVOC 0.5 mg/m³ or less 0.5 mg/m³ or less	

TVOC comparison is based on LEED BD+C: New Construction v4 (LEED v4), Indoor environmental quality (EQ) category/Low-emitting materials credit/Emissions and content requirements/General emissions evaluation. http://www.usqbc.org/node/2614095?return=/credits/new-construction/v4/indoor-environmental-quality

Reviewed By

Allysón McFry

Chemistry Laboratory Manager

Complete testing and data results are presented in UL Environment Report

Disclaimer: This Comparison affirms that: 1) the product sample was tested according to the referenced standard; 2) the measured VOC emissions were evaluated for the defined exposure scenario(s); and 3) if so indicated above that the results meet the criteria of the referenced standard(s). UL Environment did not select the samples, determine if the samples were representative of production samples, witness the production of test samples, or were we provided with information relative to the formulation or identification of component materials used in the test samples. The test results apply only to the actual samples tested. The issuance of this Comparison in no way implies Listing, Classification or Recognition by UL and does not authorize the use of UL Listing, Classification or Recognition Marks or any other reference to UL on the product or system. UL Environment authorizes the above named company to reproduce this Comparison provided it is reproduced in its entirety. The name, brand or marks of UL cannot be used in any packaging, advertising, promotion or marketing relating to the data in this Comparison, without UL's prior written permission. UL, its subsidiaries, employees and agents shall not be responsible to anyone for the use or nonuse of the information contained in this Comparison, and shall not incur any obligation or liability for damages, including consequential damages, arising out of or in connection with the use of, or inability to use, the information contained in this Comparison.

### ID+C COMMERCIAL INTERIORS | LEED v4 Required Submittal Form

The General Contractor is responsible for satisfying the requirements of the specifications, including but not limited to, LEED v4 Commercial Interior MR Credits 2, 3, 4, 5 + 6 and IEQ Credits 2, 3, 4 + 6, addressed below. The GC's responsibilities also include collecting the information required by LEED and uploading it to LEEDOnline. Gensler seeks to support the achievement of LEED requirements by requiring this submittal form, which helps the GC assure that LEED requirements are being met. Be sure to fill out all fields and check Yes/No/NA for every question below. On behalf of the client, Gensler will seek to ensure all criteria that correspond to the LEED v4 system will be addressed. Please fill out all information on this form to track additional requirements.

th	e LEED v4 system will be addressed. Please fill out all information on	this form to track additional requir	ements.
	Subcontractor:	Submittal No.:	
T	Name of person filling out this form:	Date:	
	Product Manufacturer: FSORB	Model/Description:	
1	Total Product Cost (Excluding labor and tax):	Is this cost estimated or actual?	
MINE	<ul> <li>PUBLICLY DISCLOSED ENVIRONMENTAL PRODUCT DECLARATION: I</li> <li>Does this product have a publicly disclosed EPD in accordance will ISO 14025, 14040, 14044, and EN 15804 or ISO 21930</li> <li>Does this product have a Life-Cycle Assessment in accordance will If product meets one of the above conditions, please provide supplied.</li> </ul>	ith ISO 14044?	Yes□ Nop
MKC4.1	SOURCING OF RAW MATERIALS: LEED v4 MR, Credit 4, Option 1  - Does this product have a raw material source and extraction self Does this product's manufacturer have a third party CSR, such as: Global Reporting Initiative (GRI) Sustainability Report, Organization for for Multinational Enterprises, U.N. Global Compact: Communication of If product meets one of the above conditions, please provide supporting	Economic Co-operation and Developr Progress, ISO 26000: 2010 Guidance	Yes□ No  Yes□ No  ment (OECD), Guidelines on Social Responsibility
	SOURCING OF RAW MATERIALS: LEED v4 MR, Credit 4, Option 2		
	- Does material meet the Sustainable Agriculture Network's Sustain	nable Agriculture Standard?	Yes No
	- Has material been tested using ASTM Test Method D6866		Yes□ No 🗹
	- Is material legally harvested, as defined by the exporting and recei	ving country?	Yes No
	- Does material include Exclude hide products, such as leather and o	other animal skin material?	Yes No
CV.	- Does product contain wood?		Yes No
MARCAN	<ul> <li>If so, does the new wood meet the FSC and Chain-of-Custody requ</li> </ul>	airements of this credit?	Yes No No N/A
	- Is this product re-used?		Yes□ No
	- Does this product contain recycled content?		Yes <b>☑</b> No□
	If so, please provide recycled content percentage, and supporting		100 CO CANDA
	<ul> <li>Does product have an extended producer responsibility product ta Please provide supporting pdf, or URL</li> </ul>	Yes□ No	
	- Please provide location of manufacturing plants supplying this pro	duct to the project	
	PUBLICLY DISCLOSED MATERIAL INGREDIENT LISTING: LEED v4 MR, C	redit 5	
	- Does this product have a published, complete Health Product Decl	laration in compliance with	
The Grant	the Health Product Declaration Open Standard?		Yes No
NO SERVICE	<ul> <li>Does this product have a publicly available inventory of all ingredie name and Chemical Abstract Service Registration Number (CASRN</li> </ul>		Yes <b>⊈</b> .No□
	- Has this product has been certified at the Cradle to Cradle v2 Basic		Yes No

If product meets one of the above conditions, please provide supporting pdf, or URL \_\_

PAINTS, COATINGS, ADHESIVES, AND SEALANTS: LEED v4, IEQ Credit 2 Is this product a paint, coating, adhesive, or sealant that is applied onsite?	Yes□ No.
If so, does this product meet the VOC requirements of this credit (laid out by CARB, SCM + SCAQMD)?	Yes No NA
FLOORING: LEED v4, IEQ Credit 2	
Is this product considered a flooring in LEED v4?	Yes No
If so, does this product meet the 100% threshold General Emissions Evaluation requirements of this credit?	Yes No NA
COMPOSITE WOODS AND AGRIFIBER PRODUCTS: LEED v4, IEQ Credit 2	
Does this product contain composite wood or agrifiber?	Yes No
If so, does it meet CARB, Airborne Toxic Measure to Reduce Emissions from Composite Wood Regulation requirement of this credit?	Yes No NA
CEILINGS, WALLS, THERMAL + ACOUSTIC INSULATION: LEED v4, IEQ Credit 2	4
Is this product a ceiling, wall, thermal or acoustic insulation applied on-site?	Yes No
If so, does this product meet the VOC requirements of this credit per a General Emissions Evaluation?	Yes No NAO
SYSTEMS FURNITURE AND SEATING: LEED v4, IEQ Credit 2	
Is this product systems furniture, task chair, or guest chair?	Yes No
If so, does it meet the Furniture Evaluation in accordance with the ANSI/BIFMA requirements of this credit?	Yes No NA
INTERIOR LIGHTING: LEED v4, IEQ Credit 6, Option 1	
Were Individual Occupant Spaces equipped with three lighting adjustable lighting controls (on, off, midlevel) Were all Shared Multi-Occupant Spaces provided multi-zone control systems (on, off, midlevel)?	Yes No NA
The LEED credits above are not the only credits that the General Contractor is responsible for, but they are the case clear requirement for all of the materials and products to satisfy. The General Contractor is also responsible for on the Interiors Life-Cycle Impact Reduction (MRc2) and all* construction materials/products. The General Contentering this information into LEEDOnline.  *Mechanical, electrical and plumbing components are not included.	collecting information ractor is responsible for
The General Contractor is also responsible for implementing the Construction and Demolition Waste Management Indoor Air Quality Management Plan and Assessment during construction and before occupancy (IEQc3) pe	ent Plan (MRp2 & MRc6) r LEED requirements.
More information on LEED requirements and documentation can be found in the LEED for Interior Design and C Reference Guide, online at www.usgbc.org, and Division 1 of the project specifications.	onstruction v4