



SUSTAINABILITY SHEET

Turning trash into a resource

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. <https://www.f-sorb.com/fsorb-products>



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 0.0 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.

END OF LIFE 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.

Declare.

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-2-methyl-2,2-dioxido-1,3,2-dioxaphosphorinan-5-yl)methyl] ester, mixt. with (5-ethyl-2-methyl-2-oxido-1,3,2-dioxaphosphorinan-5-yl)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-ethenediyl-di-4,1-phenylene)bis-; Blue; Butanamide, 2,2'-[(3,3'-dichloro[1,1'- biphenyl]-4,4'-diyl)bis(azo)]bis[N-(2-methylphenyl)-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-2-yl)methyl derivs.; Diindolo[3,2-b:3',2'-m]triphenodioxazine, 8,18-dichloro-5,15-diethyl-5,15-dihydro-; Fe2O3; Hexadecanoic acid, 2-ethylhexyl ester; Scarlet Red; Titanium dioxide; Water; Yellow

Living Building Challenge Criteria: Compliant

I-13 Red List:


- LBC Red List Free % Disclosed: 100% at 100ppm
- LBC Red List Approved VOC Content: Not Applicable
- Declared

I-10 Interior Performance: Not Applicable

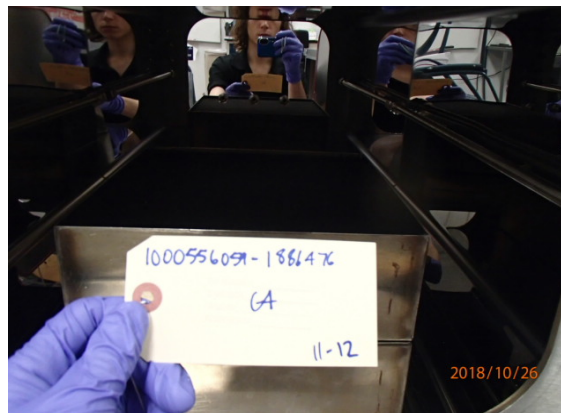
I-14 Responsible Sourcing: Not Applicable

FSB-0002
EXP. 01 FEB 2023
Original Issue Date: 2021



INDOOR AIR QUALITY EVALUATION FOLLOWING THE REQUIREMENTS OF 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 Parkway • 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 Environment 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, prepared for the required loading, and placed in a tray to expose the top surface side only. The sample was placed inside the environmental chamber, and tested according to the specified protocol.
Test Date	October 26, 2018 - November 9, 2018
Product Area Exposed	one-sided area = 0.0853 m ²
Chamber Volume	0.0858 m ³
Product Loading Ratio	0.99 m ² /m ³
Test Chamber Conditions	Air change rate: 1.00 ± 0.05 1/h Inlet air flow rate: 0.0858 ± 0.004 m ³ /h Temperature: 22.3°C - 22.9°C* Relative Humidity: 50% RH ± 5%
Test Method	CDPH - CA Section 01350 <i>Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers</i> Version 1.2.
Released by	 Allyson M. McFry Chemistry Laboratory Director
*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.	
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



RESULTS SUMMARY

Product Description		2" Black, FSorb Acoustic Panel			
Environment	Product Usage	Product Surface Area	Room Volume	Ventilation Rate (ACH)	Product Compliance?
Classroom	Wall	94.6 m ²	231 m ³	0.82	Yes
Office	Wall	33.4 m ²	30.6 m ³	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 [click here](https://industries.ul.com/wp-content/uploads/sites/2/2018/02/Technical-references-and-resources.pdf) or <https://industries.ul.com/wp-content/uploads/sites/2/2018/02/Technical-references-and-resources.pdf>

For Product Evaluation Methodologies information [click here](https://industries.ul.com/wp-content/uploads/sites/2/2018/03/ProductEvaluationMethodologies-PE.pdf) or <https://industries.ul.com/wp-content/uploads/sites/2/2018/03/ProductEvaluationMethodologies-PE.pdf>

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

TABLE 1

Product Description		2" Black, F-Sorb Acoustic Panel						
COMPARISON OF DATA TO METHOD REQUIREMENTS AT 96 HOURS FOLLOWING 10 DAYS OF CONDITIONING								
Compound	CAS Number	½ CREL (µg/m³)	Chamber Concentration (µg/m³)	Emission Factor ^{††} (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	

This report shall not be reproduced, except in full, without permission from UL. Results contained within this report only apply to the actual product tested under the testing conditions documented in this report.

Product Description 2" Black, FSorb Acoustic Panel

COMPARISON OF DATA TO METHOD REQUIREMENTS AT 96 HOURS FOLLOWING 10 DAYS OF CONDITIONING

Compound	CAS Number	1/2 CREL (µg/m ³)	Chamber Concentration (µg/m ³)	Emission Factor ^{††} (µg/m ² ·hr)	Classroom Predicted Concentration (µg/m ³) ^{**}	Office Predicted Concentration (µg/m ³) ^{**}	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
Phenol	108-95-2	100	BQL	BQL			Yes
Propylene glycol monomethyl ether	107-98-2	3,500	BQL	BQL			Yes
Styrene	100-42-5	450	BQL	BQL			Yes
Tetrachloroethylene (perchloroethylene)	127-18-4	18	BQL	BQL			Yes
Toluene	108-88-3	150	BQL	BQL			Yes
Trichloroethylene	79-01-6	300	BQL	BQL			Yes
Vinyl acetate	108-05-4	100	BQL	BQL			Yes
Xylenes (m-, o-, p-)	1330-20-7	350	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 volume.

^{††}The emission factor (EF) is calculated from the chamber concentration (CC), the chamber air change rate (N_c), the chamber volume (V_c), and the product area exposed in the chamber (A_c) as: $EF = (CC \cdot V_c \cdot N_c) / A_c$.

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

^{***}Guidance value per CA Standard Method

TABLE 2

Product Description		2" Black, FSorb Acoustic Panel	
CHAMBER CONCENTRATIONS AND EMISSION FACTORS FOR TVOC AND FORMALDEHYDE AT 24, 48, AND 96 HOURS FOLLOWING 10 DAYS OF CONDITIONING			
Elapsed Exposure Hour After 10 Days Conditioning	Chamber Concentration (µg/m ³)	Emission Factor ^{††} (µg/m ² •hr)	
TVOC[†]			
24	BQL	BQL	
48	BQL	BQL	
96	BQL	BQL	
Formaldehyde[‡]			
24	BQL	BQL	
48	BQL	BQL	
96	BQL	BQL	

BQL denotes below quantifiable level of 2 µg/m³.

Exposure hours are nominal (± 1 hour).

[†]Defined as the sum of those VOCs that elute between the retention times of n-hexane (C₆) and n-hexadecane (C₁₆) 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_c), the chamber volume (V_c), and the product area exposed in the chamber (A_c) as: $EF = (CC \cdot V_c \cdot N_c) / A_c$.

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					
CAS Number	Compound	Chamber Concentration (µg/m ³)	Emission Factor ^{††} (µg/m ² •hr)	Calculated Predicted Exposure Concentration ^{**} (µg/m ³)	
				Classroom	Office
---	TVOC ^{‡‡}	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.

[†]Quantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene.

*Identification based on NIST mass spectral database only.

[‡]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_c), the chamber volume (V_c), and the product area exposed in the chamber (A_c) as: $EF = (CC \cdot V_c \cdot N_c) / A_c$.

^{‡‡}Defined as the sum of those VOCs that elute between the retention times of n-hexane (C₆) and n-hexadecane (C₁₆) on a non-polar capillary GC column quantified based on a toluene response factor.

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

TABLE 4

Product Description		VOC PREDICTED AIR CONCENTRATIONS AND REGULATORY INFORMATION AT 96 HOURS FOLLOWING 10 DAYS OF CONDITIONING						
2" Black, FSorb Acoustic Panel		Chamber Concentration (µg/m³)	Emission Factor ^{††} (µg/m²·hr)	Predicted Exposure Concentration** (µg/m³)		✓ Indicates Presence On List		
CAS Number	Compound			Classroom	Office	CA PROP 65	CA AIR TOXIC	CREL
---	none	---	---	---	---	---	---	---

[†]Quantified using multipoint authentic standard curve. Other VOCs quantified relative to toluene.

[‡]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_c), the chamber volume (V_c), and the product area exposed in the chamber (A_c) as: $EF = (CC \cdot V_c \cdot N_c) / A_c$.

^{**}The predicted building exposure concentration (BC) is calculated from the emission factor (EF), the building air change rate (N_b), the building room volume (V_b), and the product area exposed in the building room (A_b) as: $BC = (EF \cdot A_b) / (V_b \cdot N_b)$. For more information on Predicted Concentration modeling parameters, [click here](#).

CAL Prop. 65: California Health and Welfare Agency, Proposition 65 Chemicals

1 = known to cause cancer

2 = known to cause reproductive toxicity


CAL Toxic Air Contaminant:

- I) 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.
- IIA) 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.
- IIIB) 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.
- IIIA) Substance identified as Toxic Air Contaminants, known to be emitted in California, and are TO BE EVALUATED for entry into Category III.
- IIIB) 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 Spots" Program and the California Toxic Release Inventory.
- 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


Product Description	2" Black, FSorb Acoustic Panel
CHAIN OF CUSTODY	



UL Environment Chain of Custody

1006 27176

1886476



1886476

FOR INTERNAL USE ONLY		Test Inf	
<p>Proposal # <i>Quote</i> 1101588631 <i>12529087</i></p> <p><input type="checkbox"/> RUSH (Confirm with Account Manager prior to submitting product)</p> <p>Project Product # <i>1000556059-1886476</i> <i>FSORB - 1886476</i></p> <p>Category <i>Building Products</i></p> <p>Subcategory <i>Wall Cladding</i></p>	<p><input type="checkbox"/> 24 Hr TVOC <input type="checkbox"/> with Formaldehyde</p> <p><input type="checkbox"/> 24 Hr TVOC & IVOCs <input type="checkbox"/> with Formaldehyde</p> <p><input type="checkbox"/> GREENGUARD Screening Test (24 Hr TVOC, IVOCs, and Aldehydes w/modeling)</p>	<p><input type="checkbox"/> Specialized Test f.c.</p> <p><input checked="" type="checkbox"/> CA 01350 CDPH/E</p> <p><input type="checkbox"/> ANSI/BIFMA M7.1</p> <p><input checked="" type="checkbox"/> Other (Specify test method, non-standard sample preparation, modeling parameters, application rate for wet products, etc.): <i>CDPH 1.2 VOC Test</i></p>	<p>Description 2 Black, FSorb Acoustic Panel</p> <p>Customer: Nut Shell LLC</p> <p>Received Date: 2018-OCT-24 06:50:34 PM</p> <p>Aurora Project No.: 1000556059 Order No.: 12529087 Oracle Project No.: 4788693274</p> <p style="text-align: right;">1 of 4</p>
Manufacturer and Contact Details			
Company Name: <i>Nut Shell LLC, dba F-Sorb</i>		Contact Name: <i>Yancy Wright</i>	
Street Address: <i>15115 NE 90th St.</i>		Title: <i>Lead Specialist Sustainability</i>	
City, State/Province, Zip/Postal Code: <i>Redmond WA 98052</i>		Phone Number: <i>(981) 510-6701</i>	
Country: <i>U.S.A.</i>		E-Mail Address: <i>Yancy@f-sorb.com</i>	
Product Details			
Sample ID (Used in Report): <i>2" Black, FSorb Acoustic Panel</i>		Product Collection Location: <i>Redmond, WA</i>	
Product Commercial Name: <i>F-Sorb</i>		Product Collection Date/Time (mm/dd/yyyy/hh:mm): <i>10/11/18 4:15 p.m.</i>	
Manufacturer's Identification Number: <i>B20SAB 0.002</i>		Product Collected By: <i>AJ Tangeman</i>	
Manufactured Date (mm/dd/yyyy): <i>2018</i>		Number of Product Pieces: <i>4</i>	
Post Testing Instructions			
<input type="checkbox"/> Return Product (Return Shipper and Manufacturer's Shipping Account # must be provided for product return)		<input checked="" type="checkbox"/> Discard product after testing	
Return Shipper: <i>Noneed to return</i>		Manufacturer's Shipping Acct #	
Packed By		Carrier: <i>UPS</i>	
Ship Date (mm/dd/yyyy): <i>10/11/18</i>		Air Bill #: <i>EA614950199244861</i>	
Signature Tracking Details			
Relinquished By (Manufacturer): <i>F-Sorb</i>		Date & Time (mm/dd/yyyy/hh:mm): <i>10/11/18 11:26 a.m.</i>	
Signature: <i>[Signature]</i>			
Laboratory Receiving Details - FOR INTERNAL USE ONLY			
Received by (Laboratory): <i>[Signature]</i>		Date & Time (mm/dd/yyyy/hh:mm): <i>10/12/18 10:30 AM</i>	
Signature			
Types of Containers		Shipping Package Notes	
Condition of Shipping Package: <input checked="" type="checkbox"/> Undamaged <input type="checkbox"/> Damaged		Product Condition Notes	
Condition of Product: <input checked="" type="checkbox"/> Acceptable <input type="checkbox"/> Unacceptable			

Write - Project File
 Copy - Sample
 Print - Customer Release

SHIP TO:
 UL Environment
 2211 Newmarket Parkway, #106, Marietta, Georgia 30067
 T: 866.485.4733 F: 770.980.0972

00-FN-F052 Issue 2.0

**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 COMPARISON TO STANDARD CRITERIA

Environment	Classroom		Office	
Surface Area	94.6 m ²		33.4 m ²	
	Criterion	Meets?	Criterion	Meets?
Individual VOC	≤ ½ REL	Yes	≤ ½ REL	Yes
Formaldehyde	≤ 9.0 µg/m ³	Yes	≤ 9.0 µg/m ³	Yes

Environment	Classroom	Office
Surface Area	94.6 m ²	33.4 m ²
TVOC	0.5 mg/m ³ or less	0.5 mg/m ³ 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.usgbc.org/node/2614095?return=/credits/new-construction/v4/indoor-environmental-quality>

Reviewed By	 Allyson McFry Chemistry Laboratory Manager
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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.

Subcontractor:	Submittal No.:
Name of person filling out this form:	Date:
Product Manufacturer: FSORB	Model/Description:
Total Product Cost (Excluding labor and tax):	Is this cost estimated or actual?

MRC3

PUBLICLY DISCLOSED ENVIRONMENTAL PRODUCT DECLARATION: LEED v4, MR Credit 3

- Does this product have a publicly disclosed EPD in accordance with ISO 14025, 14040, 14044, and EN 15804 or ISO 21930? Yes No
 - Does this product have a Life-Cycle Assessment in accordance with ISO 14044? Yes No
- If product meets one of the above conditions, please provide supporting pdf, or URL _____

MRC4.1

SOURCING OF RAW MATERIALS: LEED v4 MR, Credit 4, Option 1

- Does this product have a raw material source and extraction self-reporting document? Yes No
 - Does this product's manufacturer have a third party CSR, such as: Global Reporting Initiative (GRI) Sustainability Report, Organization for Economic Co-operation and Development (OECD), Guidelines for Multinational Enterprises, U.N. Global Compact: Communication of Progress, ISO 26000: 2010 Guidance on Social Responsibility
- If product meets one of the above conditions, please provide supporting pdf, or URL _____

MRC4.2

SOURCING OF RAW MATERIALS: LEED v4 MR, Credit 4, Option 2

- Does material meet the Sustainable Agriculture Network's Sustainable 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 receiving country? Yes No
 - Does material include Exclude hide products, such as leather and other animal skin material? Yes No
 - Does product contain wood? Yes No
 - If so, does the *new* wood meet the FSC and Chain-of-Custody requirements of this credit? Yes No N/A
 - Is this product re-used? Yes No
 - Does this product contain recycled content? Yes No
- If so, please provide recycled content percentage, and supporting pdf, or URL _____
- Does product have an extended producer responsibility product take-back/ recycling program? Yes No
- Please provide supporting pdf, or URL _____
- Please provide location of manufacturing plants supplying this product to the project

MRC5

PUBLICLY DISCLOSED MATERIAL INGREDIENT LISTING: LEED v4 MR, Credit 5

- Does this product have a published, complete Health Product Declaration in compliance with the Health Product Declaration Open Standard? Yes No
 - Does this product have a publicly available inventory of all ingredients identified by name and Chemical Abstract Service Registration Number (CASRN)? Yes No
 - Has this product has been certified at the Cradle to Cradle v2 Basic level or v3 Bronze level? 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

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 NA

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)?

Yes No NA

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 credits for which there is a clear requirement for *all of the materials and products* to satisfy. The General Contractor is also responsible for collecting information on the Interiors Life-Cycle Impact Reduction (MRc2) and all* construction materials/products. The General Contractor is responsible for entering this information into LEEDOnline.

**Mechanical, electrical and plumbing components are not included.*

The General Contractor is also responsible for implementing the Construction and Demolition Waste Management Plan (MRp2 & MRc6) and Indoor Air Quality Management Plan and Assessment during construction and before occupancy (IEQc3) per LEED requirements.

More information on LEED requirements and documentation can be found in the LEED for Interior Design and Construction v4 Reference Guide, online at www.usgbc.org, and Division 1 of the project specifications.