



June 23, 2017

Accella Polyurethane Systems  
Stephen Davis  
200 Industrial Blvd.  
McKinney, TX 75069

Subject: Project 90584, Out-of-Scope Profile Study Test Results

Dear Stephen Davis:

Thank you for choosing UL Environment and its ISO/IEC 17025 accredited testing laboratories for your analytical needs. Please find attached your out-of-scope profile study test report. The results for the "Bayseal OC, 30181-SP1706" sample tested are compared to the criteria below:

	Environment	TVOC	Formaldehyde	Total Aldehydes	CREL/TLV
<b>GREENGUARD</b>	Office	✓	✓	✓	✓
<b>GREENGUARD Gold</b>	Office	✓	✓	✓	✓
	Classroom	✓	✓	✓	✓

✓ - meets criteria; ✓\* - meets within 25%; X - over criteria

For more technical information about the GREENGUARD Certification programs, please visit, [www.UL.com/GG](http://www.UL.com/GG).

Sincerely,

Allyson M. McFry  
Chemistry Laboratory Director

Attachment: Report No. 90584-15



GREENGUARD CERTIFICATION PROGRAM OUT-OF-SCOPE PROFILE STUDY TEST REPORT	
SAMPLE INFORMATION	
<b>Customer:</b>	Accella Polyurethane Systems
<b>Sample Identification:</b>	UL Environment's 90584-00130AA
<b>Product Description:</b>	INSULATION; Bayseal OC, 30181-SP1706 (one-sided area = 0.0853 m <sup>2</sup> )
<b>Product Loading:</b>	0.99 m <sup>2</sup> /m <sup>3</sup>
<b>Test Period:</b>	06/16/2017 - 06/17/2017
<b>Test Conditions:</b>	1.00 ± 0.05 ACH 50% RH ± 5% RH 23° C ± 1° C
<b>Test Description:</b>	The product was received by UL Environment on 06/06/17 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.
<b>ASTM Test Method:</b>	ASTM D 5116 (0.09 ± 0.007 m <sup>3</sup> chamber)

RESULTS				
Analyte	24 Hour Emission Factor (µg/m <sup>2</sup> ·hr)	168 Hour Predicted Concentration		
		GREENGUARD	GREENGUARD Gold	
			Office	Classroom
TVOC	178	0.088 mg/m <sup>3</sup>	0.088 mg/m <sup>3</sup>	0.032 mg/m <sup>3</sup>
Formaldehyde	6.5	0.006 ppm	0.0047 ppm <sup>††</sup>	0.0023 ppm
Total Aldehydes	6.5	0.006 ppm	0.006 ppm	0.002 ppm

<sup>††</sup>336 hour predicted concentration

MODELING PREDICTED CONCENTRATION PARAMETERS								
Certification Program	Environment Basis	Product Usage	Surface Area (m <sup>2</sup> )	Room Volume (m <sup>3</sup> )	ACH (1/hr)	Assumed Decay Parameters		
						k <sub>T</sub>	k <sub>F</sub>	k <sub>A</sub>
<b>GREENGUARD and GREENGUARD Gold Office</b>	CDPH/EHLB/Standard Method V1.1	wall	28.1	30.6	0.68	0.007	0.001	0.004
<b>GREENGUARD Gold Classroom</b>	CDPH/EHLB/Standard Method V1.1	wall	94.6	231	0.82	0.007	0.001	0.004

**CONFIDENTIAL**

Test data and interpretation applicable to  
GREENGUARD Certification Program only

<b>IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS AT 24 ELAPSED EXPOSURE HOURS</b>		
<b>CAS Number</b>	<b>Compound Identified</b>	<b>Emission Factor (µg/m<sup>2</sup>·hr)</b>
110-98-5	2-Propanol, 1,1'-oxybis- (Dipropylene glycol)*	55.3
1000366-76-8	2-(2-(2-(2-Methoxyethoxy)ethoxy)ethoxy)acetic acid*	29.7
---	Unresolved hydrocarbons	13.8
106-62-7	1-Propanol, 2-(2-hydroxypropoxy)*	13.5
57-55-6	1,2-Propanediol (Propylene glycol)	12.8
111-76-2	Ethanol, 2-butoxy <sup>†</sup>	10.5
629-36-7	Propane, 1,1'-oxybis[3-chloro-*	9.0
623-36-9	2-Pentenal, 2-methyl	7.9
110-88-3	1,3,5-Trioxane*	4.8
---	Hydrocarbons	3.8
112-40-3	Dodecane*	3.6
1002-43-3	Undecane, 3-methyl*	3.1
17301-23-4	Undecane, 2,6-dimethyl*	2.6
540-97-6	Cyclohexasiloxane, dodecamethyl	2.4
108-94-1	Cyclohexanone	2.2
541-02-6	Cyclopentasiloxane, decamethyl*	2.2
128-37-0	2,6-Di-tert-butyl-4-methylphenol (BHT)* <sup>†</sup>	2.1

\*Indicates NIST/EPA/NIH best library match only based on retention time and mass spectral characteristics.

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

<b>TARGET LIST ALDEHYDES AT 24 ELAPSED EXPOSURE HOURS</b>		
<b>CAS Number</b>	<b>Compound Identified</b>	<b>Emission Factor (µg/m<sup>2</sup>·hr)</b>
4170-30-3	2-Butenal	BQL
75-07-0	Acetaldehyde	BQL
100-52-7	Benzaldehyde	BQL
5779-94-2	Benzaldehyde, 2,5-dimethyl	BQL
529-20-4	Benzaldehyde, 2-methyl	BQL
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	<b>6.5</b>
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.

**CONFIDENTIAL**

**Test data and interpretation applicable to  
GREENGUARD Certification Program only**

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.

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.