

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 CCX, 30175-SP1705" sample tested are compared to the criteria below:

	Environment	TVOC	Formaldehyde	Total Aldehydes	CREL/TLV
GREENGUARD	Office	✓	✓	$\checkmark$	$\checkmark$
GREENGUARD Gold	Office	✓	✓	$\checkmark$	$\checkmark$
	Classroom	✓	✓	$\checkmark$	$\checkmark$

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

For more technical information about the GREENGUARD Certification programs, please visit, **www.UL.com/GG**.

Sincerely,

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Allyson M. McFry Chemistry Laboratory Director

Attachment: Report No. 90584-16



## GREENGUARD CERTIFICATION PROGRAM OUT-OF-SCOPE PROFILE STUDY TEST REPORT

SAMPLE INFORMATION				
Customer:	Accella Polyurethane Systems			
Sample Identification:	UL Environment's 90584-00140AA			
Product Description:	INSULATION; Bayseal CCX, 30175-SP1705 (one-sided area = 0.0853 m <sup>2</sup> )			
Product Loading:	1.00 m <sup>2</sup> /m <sup>3</sup>			
Test Period:	06/16/2017 - 06/17/2017			
Test Conditions:	1.00 ± 0.05 ACH 50% RH ± 5% RH 23º C ± 2º C			
Test Description:	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.			
ASTM Test Method:	ASTM D 5116 (0.09 ± 0.007 m <sup>3</sup> chamber)			

RESULTS					
	24 Hour	168 Hour Predicted Concentration			
Analyte	Emission Factor	GREENGUARD	GREENGUARD Gold		
	(µg/m²∙hr)	GREENGUARD	Office	Classroom	
TVOC	BQL	< 0.001 mg/m <sup>3</sup>	< 0.001 mg/m <sup>3</sup>	< 0.001 mg/m <sup>3</sup>	
Formaldehyde	BQL	< 0.001 ppm < 0.001 ppm		< 0.001 ppm	
Total Aldehydes	BQL	< 0.001 ppm	< 0.001 ppm	< 0.001 ppm	

MODELING PREDICTED CONCENTRATION PARAMETERS								
Certification Program	Environment Basis	Product Usage	Surface Area (m²)	Room Volume (m³)	ACH (1/hr)	Assumed Decay Parameters		
						kτ	k <sub>F</sub>	k <sub>A</sub>
GREENGUARD and GREENGUARD Gold Office	CDPH/EHLB/Standard Method V1.1	wall	28.1	30.6	0.68	0.006	0.004	0.002
GREENGUARD Gold Classroom	CDPH/EHLB/Standard Method V1.1	wall	94.6	231	0.82	0.006	0.004	0.002

IDENTIFIED INDIVIDUAL VOLATILE ORGANIC COMPOUNDS AT 24 ELAPSED EXPOSURE HOURS				
CAS Number	Compound Identified	Emission Factor (µg/m²•hr)		
123-91-1	Dioxane (1,4-) <sup>†</sup>	3.4		

\*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.

TARGET LIST ALDEHYDES AT 24 ELAPSED EXPOSURE HOURS				
CAS Number	Compound Identified	Emission Factor (µg/m²•hr)		
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	BQL		
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.

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.