International Product Assurance LABORATORIES

100 Clemson Research Blvd., Anderson, SC USA 29625
P: +1 855-IPA-LABS E: testing@IPALaboratories.com
www.IPALaboratories.com

November 12, 2024

Schluter Systems
Attn: Kali Pharand
194 Pleasant Ridge Rd.
Plattsburgh, NY 12901
USA

Dear Kali Pharand,

The sample you identified as "Metal Accessories" was tested per CA 01350 VOC Emissions per your request (IPAL Test Report: IPAL-0090-24). The testing was performed by Research Triangle Park (RTP) Laboratories in Raleigh, NC. All comments, findings, and interpretations within this report were made by RTP Laboratories.

Testing was conducted on the sample submitted for emissions of total volatile organic compounds (TVOC), aldehydes, formaldehyde, and specific individual volatile organic compounds (VOCs). Any emissions were measured and the resultant emissions to the environment were determined for each of the potential pollutants.

The attached report includes the detailed test results.

Green Building Standard, Rating System, or Code	**Criteria**	**Results**
LEED V4.1	Credit: Low-Emitting Materials, Flooring At least 90% of all flooring, by cost or surface area, meets the VOC emissions evaluation: • Product has been tested according to CDPH Standard Method v1.2 – 2017 and complies with the VOC limits in Table 4-1 of the method: Max Allowable Concentration of Target CREL VOCs No. 1 – 35 (including formaldehyde and acetaldehyde) • The range of total VOCs after 14 days was measured as specified in the CDPH Standard Method v1.2 and is reported (TVOC ranges: 0.5 mg/m^3 or less, between 0.5 and 5 mg/m^3, or 5 mg/m^3 or more).	None Detected None Detected (≤0.5mg/m^3)

100 Clemson Research Blvd., Anderson, SC USA 29625
P: +1 855-IPA-LABS E: testing@IPALaboratories.com
www.IPALaboratories.com

IgCC (ASHRAE 189.1) 2021	Section 801.4.2.3 (8.4.2.3) Emissions of floor covering materials installed in the building interior, and each product layer within a flooring system containing more than one distinct product layer, shall be individually determined according to CDPH Standard Method and shall comply with the limit requirements: Table 4-1 Max Allowable Concentration of Target CREL VOCs No. 1 – 35 (including formaldehyde and acetaldehyde)	None Detected
CHPS (U.S.) 2020	EQ C6.1.2 Flooring Systems All flooring systems installed in the project's interior totaling 90% or more of the total floor area shall be tested for emissions of VOCs of concern with respect to chronic inhalation exposures following the specifications of the CDPH Standard Method V1.2, 2017 (CDPH Standard Method): Table 4-1 Max Allowable Concentration of Target CREL VOCs No. 1 – 35 (including formaldehyde and acetaldehyde)	None Detected
WELL v2	X06 VOC Restrictions Flooring. 90% of cost or surface area tested per methods and VOC emission thresholds established in CDPH Standard Method v1.2: Table 4-1 Max Allowable Concentration of Target CREL VOCs No. 1 – 35 (including formaldehyde and acetaldehyde)	None Detected
BREEAM	Hea 02 Criterion 10 Flooring materials, ≤ 0.06 mg/m^3 formaldehyde, ≤1.0 mg/m^3 TVOCs, per CDPH Standard Method	None Detected
Living Building Challenge 4.1	Imperative 10 Healthy Interior Performance Install products that comply with emissions limits of the CDPH Standard Method v1.2-2017 (or international equivalent) for 90% of interior building products that have the potential to emit volatile organic compounds (VOCs): Table 4-1 Max Allowable Concentration of Target CREL VOCs No. 1 – 35 (including formaldehyde and acetaldehyde)	None Detected

International Product Assurance LABORATORIES
100 Clemson Research Blvd., Anderson, SC USA 29625
P: +1 855-IPA-LABS E: testing@IPALaboratories.com
www.IPALaboratories.com

The following is an image of the sample submitted for testing.

SAMPLE PHOTO

DISCLAIMER AND LIMITATION OF LIABILITY

This report is provided by Tile Council of North America, Inc. DBA International Product Assurance Laboratories ("IPA Laboratories") for the sole use of the client and no one else. It is intended for professional use by a knowledgeable professional. If published by the client, it must be published in full, including this disclaimer and limitation of liability.

This report is not an endorsement, recommendation, approval, certification, or criticism by IPA Laboratories or RTP Laboratories of any particular product or its application. IPA Laboratories recommends that anyone considering the use or installation of a particular product consult with the manufacturer or an industry professional for advice specific to the person's needs and consider any applicable laws, statutes, codes, or regulations relevant to the particular product. IPA Laboratories does not know all the different manners and applications in which a client's particular product might be used, and, therefore, it disclaims any and all duty to provide warnings or to further investigate the suitability of the use of a particular product in a particular situation.

Unless otherwise expressly stated, RTP Laboratories tested the specific test subject material provided by the client and identified in the lab report, as indicated by the client. IPA Laboratories does not independently verify the information provided by the client, and it makes no representation that similar results would be achieved with other, untested materials, even if such other materials purportedly have the same product name, are purportedly of the same or similar type of product made by the client, or are purportedly from the same batch of product. Nor does IPA Laboratories state that the date in this report is representative of production occurring at the same time or at any other time. Only the manufacturer may make that claim, based on sampling and quality control parameters beyond the knowledge and control of IPA Laboratories. IPA Laboratories does not provide any supervision, review, management, or quality control of any manufacturer's production.

IPA Laboratories makes no representation that the client's products are uniform or identical to the test subject material, that the test subject material is suitable for any particular use, application, or installation, or that it will exhibit the same properties when installed or used in a particular manner. The data provided in this report results from standardized laboratory testing performed under laboratory conditions. As such it does not represent all

100 Clemson Research Blvd., Anderson, SC USA 29625
P: +1 855-IPA-LABS E: testing@IPALaboratories.com
www.IPALaboratories.com

conditions under which the products may be used or subjected. For testing on actual materials being used or considered for a job site, contact IPA Laboratories for sampling provisions and possible testing.

This report is intended solely to provide the results of the test procedure stated above as performed on the test subject material provided by the client and may not be relied on for any other purpose. IPA LABORATORIES MAKES NO OTHER REPRESENTATIONS OR WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED. ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY DISCLAIMED. IN THE EVENT OF A DISPUTE CONCERNING THIS REPORT, THE EXCLUSIVE REMEDY FOR CLIENT SHALL BE FOR IPA LABORATORIES TO REPEAT THE TEST REQUESTED, BUT IN NO EVENT SHALL IPA LABORATORIES BE LIABLE FOR AN AMOUNT GREATER THAN THE AMOUNT IT RECEIVED FROM CLIENT FOR THE TEST. UNDER NO CIRCUMSTANCES WILL IPA LABORATORIES BE LIABLE TO CLIENT FOR ANY OTHER DAMAGES (NOR SHALL IT BE LIABLE TO ANY OTHER PERSON OR BUSINESS ENTITY FOR ANY DAMAGES), INCLUDING WITHOUT LIMITATION ANY AND ALL DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES, RESULTING, IN WHOLE OR IN PART, FROM ANY USE OF, REFERENCE TO, OR RELIANCE UPON THE REPORT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IPA LABORATORIES DISCLAIMS ALL LIABILITY TO ANY THIRD PARTY CONCERNING THIS REPORT. THE FOREGOING LIMITATION OF LIABILITY IS A FUNDAMENTAL ELEMENT OF IPA LABORATORIES' AGREEMENT TO CONDUCT AND PROVIDE THE REPORT.

11/12/2024

Katelyn Simpson
Director of Laboratory Service

Research Triangle Park Laboratories, Inc.
7201 ACC Blvd., Suite 104
Raleigh, NC 27617

919 510-0228 Telephone
919 510-0141 Fax *Web Site: www.rtp-labs.com*

ISO 17025 Compliant
PA Registration #68-1664
DEA Registered

March 11, 2024

International Product Assurance Laboratories
100 Clemson Research Boulevard
Anderson, SC 29625

Attn: Ashley Moore

PROJECT: VOCs Testing –Report of VOC Chamber Tests.
Purchase Order: 4628
RTP Labs ID: 24-006-06 Metal Accessory

Enclosed with this letter is the report for the sample received on February 13, 2024 in good condition. The manufacturing date is listed on the COC form. The sample was tested for VOCs emissions according to ASTM D5116 Small Chamber Test and California Specification 01350 Test Methods. The sample was prepared according to the sample preparation descriptions as described in CA 01350. The chamber testing was started on February 15, 2024 with a 10-day conditioning period, followed by a 96-hour test as described in CA 01350.

The test results are summarized in the attached document. The testing method reporting limits are 0.001 mg/m^3 using the California Standard Classroom Model.

If you have any questions, please give me a call at (919) 510-0228.

Sincerely,

Alston Sykes

Alston Sykes, Principal Chemist
Attachments: attachments and photos

Research Triangle Park Laboratories, Inc.
7201 ACC Blvd., Suite 104
Raleigh, NC 27617

919 510-0228 Telephone
919 510-0141 Fax *Web Site: www.rtp-labs.com*

ISO 17025 Compliant
PA Registration #68-1664
DEA Registered

0090-24

Chain of Custody Form

For Testing of Product/Material per CA DHS Section 01350
Please fill out a separate chain of custody form for each product tested

Section A – General Information (Section A)

Manufacturer Name:	Schluter Systems
Street Address:	194 Pleasant Ridge Road
City/State:	Plattsburgh, NY
Zip/Postal Code:	12901
Country:	United States
Contact Name:	Kali Pharand
Contact Title:	Product Standards and Sustainability Coordinator
Phone/Fax Numbers:	888-472-4588 x 4152
Email Address:	sustainability@schluter.com

Section B – Sampling Information (Section B)

Product Name:	DESIGNLINE	
Manufacturer Product ID #:	DESIGNLINE	
Sample ID # (Same as TCNA Test Report #):	Metal Accessories	
Product Category:	Metal Accessories	
Product Subcategory:		
Date Manufactured:	NOV 123	
Plant Name and Location:	PLATTSBURGH, NY	
Date and Time Sample Collected from Plant:	1/31/24	
Collection Location within Plant:	SAMPLES	
Number of Sample Pieces Collected (Attach Photos):	1	
Sample Collected by:	SHAMIM MONDAL	Signature: Shamim Mondal
Sample Packaged and Shipped to TCNA By:	SHAMIM MONDAL	Signature: Shamim Mondal
Shipping Date:	2/1/24	
Carrier/Airbill Number:	UPS	

Section C – TCNA Receipt Information (Section C)

Arrival to:	Tile Council of North America, Inc. 100 Clemson Research Boulevard Anderson, SC 29625	
Receipt Date:	2.13.2024	
Received By:	Ashley Moore	Signature: AMoore
Logged into TCNA Database by:	Ashley Moore	
TCNA Test Report #:	0090-24	
Shipment Forwarded To RTP Laboratories By:	Ashley Moore	Signature: AMoore
Shipment Date:	2.12.2024	
Carrier/Airbill Number:	UPS —	

Section D – RTP Laboratories Receipt Information (Section D)

Arrival to:	Research Triangle Park Laboratories, Inc. 7201 ACC Blvd., Suite 104 Raleigh, NC 27617	
Receipt Date:	2-13-24	
Received By:	Alston Sykes	Signature: A. Sykes
Condition of Shipping Package:	Good	
Condition of Sample:	Good	
Laboratory ID #:	24-006-06	

Research Triangle Park Laboratories, Inc.
7201 ACC Blvd., Suite 104
Raleigh, NC 27617

919 510-0228 Telephone
919 510-0141 Fax *Web Site: www.rtp-labs.com*

ISO 17025 Compliant
PA Registration #68-1664
DEA Registered

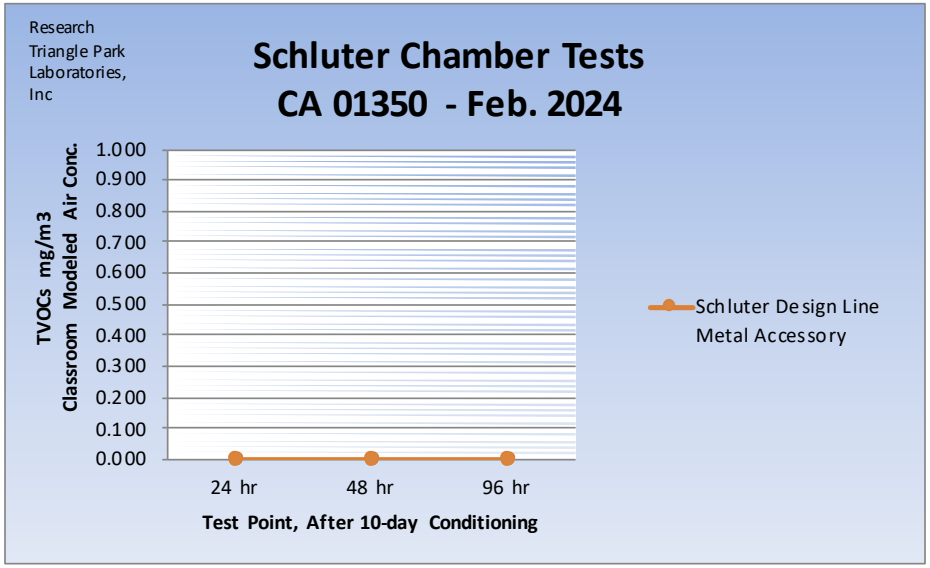
Photo of Sample Received Feb. 13, 2024:
24-006-06 (IPAL-0090-24) Metal Accessory

Research Triangle Park Laboratories Inc, 7201 ACC Blvd., Raleigh, NC 27617

California 01350/ASTM D5116 Small Chamber Tests for Volatile Organic Compound Emissions From Products

Project ID: 24-006-06
Client: Tile Council of North America
Sample Receipt Date: Feb. 13, 2024
Test Start Dates: Feb. 15, 2024
Products:

	Modeled Standard Classroom Concentration, mg/m3			
	24 hr	48 hr	96 hr	LOQ
Schluter Design Line Metal Accessory	0.000	0.000	0.000	0.001



Standard Classroom Model Parameters:

Room Dimensions: 40 ft length x 24 ft wide x 8.5 ft ht
Room Volume: 231 m^3
Ventilation Rate: 0.90 air changes per hour
Net Floor Surface: 89.2 m^2

Chamber and Sample Conditions:

Chamber Volume: 50 Liters
Temperature: 20-25 C; Relative Humidity: 45-55 %
Air Exchange Rate: 1 per hour (0.833L/min = 50 liters)
Sample Surface Area: 0.0232 m^2
Sample Loading Factor: 0.5 m^2/m^3

Sample Receipt Date: **2/13/2024** **Test Start Date:** **2/15/2024** 10 day conditioning performed prior to 96 h testing.
Project ID: **24-006-06**
Sample ID: **Schluter Metal Accessory (IPAL-0090-24)**
Client: **IPA Labs**

Standard Classroom Parameters

Room Dimensions, ft	40x24x8.5
Room Volume, m3	**231**
Ventilation Rate, ach	**0.9**
Net Surface Area, m2	**89.2**

ASTM D5116 Small Chamber Method

California Specification 01350
Paints and Wallcoverings Model: 94.6 m2
Flooring Products Model: 89.2 m2

	Emission Factors (ug/(m2*h))						Cm	Cm	Cm	
Compound Name	**02/16/24 24 hr Chamber Conc. ug/m3**	**24 hr EF**	**02/17/24 48 hr Chamber Conc. ug/m3**	**48 hr EF**	**02/29/24 96 hr Chamber Conc. ug/m3**	**96 hr EF**	**Classroom: 24 hr Modeled Air Conc. ug/m3**	**Classroom: 48 hr Modeled Air Conc. ug/m3**	**Classroom: 96 hr Modeled Air Conc. ug/m3**	**1/2 CREL 12/2008 (A)Acute (C)Chronic**
GC/MS Target, LOQ 2 ng/L (ug/m3)										
None Detected	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
GC/MS TICs, LOQ 5 ng/L (ug/m3)										
None Dectected	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
HPLC Aldehydes, LOQ 2 ng/L (ug/m3)										
Formaldehyde	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	4.5 C
Acetaldehyde	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	70 C
TVOCs LOQ 25 ng/L (ug/m3) Use 1 for < value	0.0	**0.0**	0.0	**0.0**	0.0	**0.0**	**0.0**	**0.0**	**0.0**	**ug/m3**
							0.000	**0.000**	**0.000**	**mg/m3**

Reporting Limit, 0.001 mg/m3

Research Triangle Park Laboratories, Inc.
7201 ACC Blvd., Suite 104
Raleigh, NC 27617

919 510-0228 Telephone
919 510-0141 Fax *Web Site: www.rtp-labs.com*

ISO 17025 Compliant
PA Registration #68-1664
DEA Registered

October 24, 2024

International Product Assurance Laboratories
100 Clemson Research Boulevard
Anderson, SC 29625

Attn: Ashley Moore

PROJECT: VOCs Testing –Report of VOC Chamber Tests. Updated with Office Model
Purchase Order: 4628
RTP Labs ID: 24-006-06 Metal Accessory

Enclosed with this letter is the report for the sample received on February 13, 2024 in good condition. The manufacturing date is listed on the COC form. The sample was tested for VOCs emissions according to ASTM D5116 Small Chamber Test and California Specification 01350 Test Methods. The sample was prepared according to the sample preparation descriptions as described in CA 01350. The chamber testing was started on February 15, 2024 with a 10-day conditioning period, followed by a 96-hour test as described in CA 01350.

The test results are summarized in the attached document. The testing method reporting limits are 0.001 mg/m^3 using the California Standard Office Model.

If you have any questions, please give me a call at (919) 510-0228.

Sincerely,

Alston Sykes, Principal Chemist
Attachments: attachments and photos

Research Triangle Park Laboratories, Inc.
7201 ACC Blvd., Suite 104
Raleigh, NC 27617

919 510-0228 Telephone
919 510-0141 Fax *Web Site: www.rtp-labs.com*

ISO 17025 Compliant
PA Registration #68-1664
DEA Registered

0090-24

Chain of Custody Form

For Testing of Product/Material per CA DHS Section 01350
Please fill out a separate chain of custody form for each product tested

Section A – General Information (Section A)

Manufacturer Name:	Schluter Systems
Street Address:	194 Pleasant Ridge Road
City/State:	Plattsburgh, NY
Zip/Postal Code:	12901
Country:	United States
Contact Name:	Kali Pharand
Contact Title:	Product Standards and Sustainability Coordinator
Phone/Fax Numbers:	888-472-4588 x 4152
Email Address:	sustainability@schluter.com

Section B – Sampling Information (Section B)

Product Name:	DESIGNLINE	
Manufacturer Product ID #:	DESIGNLINE	
Sample ID # (Same as TCNA Test Report #):	Metal Accessories	
Product Category:	Metal Accessories	
Product Subcategory:		
Date Manufactured:	NOV 123	
Plant Name and Location:	PLATTSBURGH, NY	
Date and Time Sample Collected from Plant:	1/31/24	
Collection Location within Plant:	SAMPLES	
Number of Sample Pieces Collected (Attach Photos):	1	
Sample Collected by:	SHAMIM MONDAL	Signature: Shamim Mondal
Sample Packaged and Shipped to TCNA By:	SHAMIM MONDAL	Signature: Shamim Mondal
Shipping Date:	2/1/24	
Carrier/Airbill Number:	UPS	

Section C – TCNA Receipt Information (Section C)

Arrival to:	Tile Council of North America, Inc. 100 Clemson Research Boulevard Anderson, SC 29625	
Receipt Date:	2.13.2024	
Received By:	Ashley Moore	Signature: AMoore
Logged into TCNA Database by:	Ashley Moore	
TCNA Test Report #:	0090-24	
Shipment Forwarded To RTP Laboratories By:	Ashley Moore	Signature: AMoore
Shipment Date:	2.12.2024	
Carrier/Airbill Number:	UPS —	

Section D – RTP Laboratories Receipt Information (Section D)

Arrival to:	Research Triangle Park Laboratories, Inc. 7201 ACC Blvd., Suite 104 Raleigh, NC 27617	
Receipt Date:	2-13-24	
Received By:	Alston Sykes	Signature: A. Sykes
Condition of Shipping Package:	Good	
Condition of Sample:	Good	
Laboratory ID #:	24-006-06	

Research Triangle Park Laboratories, Inc.
7201 ACC Blvd., Suite 104
Raleigh, NC 27617

919 510-0228 Telephone
919 510-0141 Fax *Web Site: www.rtp-labs.com*

ISO 17025 Compliant
PA Registration #68-1664
DEA Registered

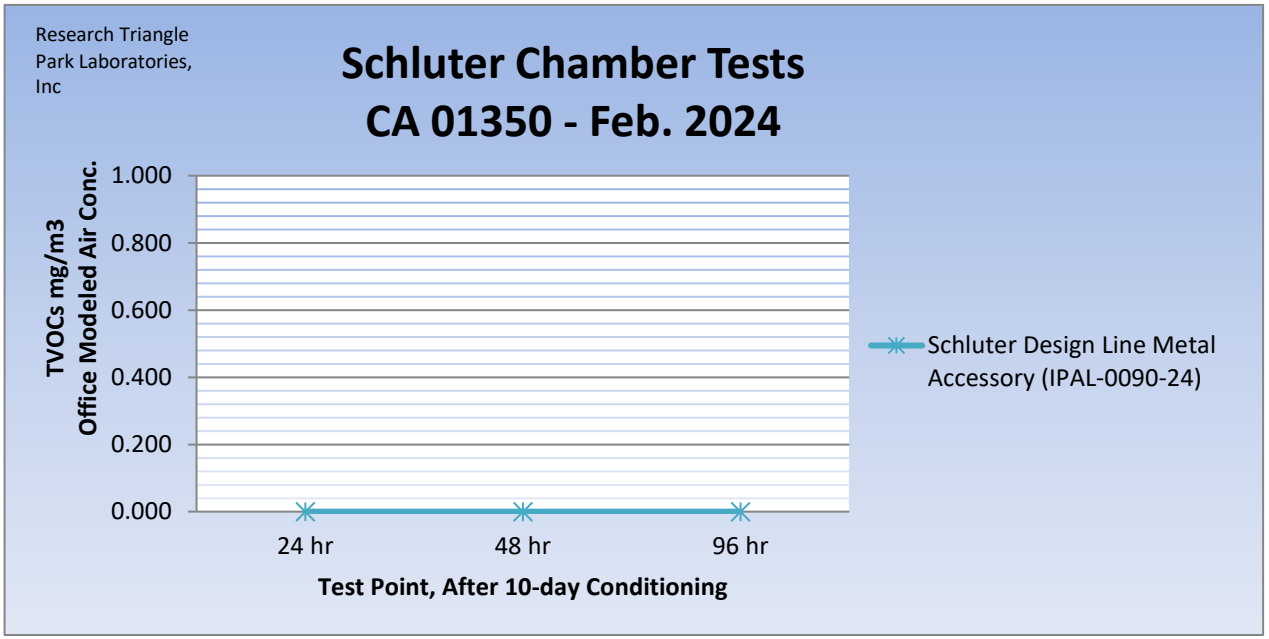
Photo of Sample Received Feb. 13, 2024:
24-006-06 (IPAL-0090-24) Metal Accessory

Research Triangle Park Laboratories Inc, 7201 ACC Blvd., Raleigh, NC 27617

California 01350/ASTM D5116 Small Chamber Tests for Volatile Organic Compound Emissions From Products

Project ID: 24-006-06
Client: Tile Council of North America
Sample Receipt Date: Feb. 12, 2024
Test Start Dates: Feb. 15, 2024
Products:

	Modeled Standard Office Concentration, mg/m3			
	24 hr	48 hr	96 hr	LOQ
Schluter Design Line Metal Accessory (IPAL-0090-24)	0.000	0.000	0.000	0.001



Standard Office Model Parameters:

Room Dimensions: 12 ft length x 10 ft wide x 9.0 ft ht

Room Volume: 30.6 m^3

Ventilation Rate: 0.68 air changes per hour

Net Floor Surface: 11.15 m^2

Chamber and Sample Conditions:

Chamber Volume: 50 Liters

Temperature: 20-25 C; Relative Humidity: 45-55 %

Air Exchange Rate: 1 per hour (0.833L/min = 50 liters)

Sample Surface Area: 0.0232 m^2

Sample Loading Factor: 0.5 m^2/m^3

Sample Receipt Date: 2/12/2024 **Test Start Date:** 2/15/2024 10 day conditioning performed prior to 96 h testing.
Project ID: 24-006-06
Sample ID: Schluter Metal Accessory (IPAL-0090-24)
Client: IPA Labs

Standard Office Parameters

Room Dimensions, ft	12x10x9.0
Room Volume, m3	**30.6**
Ventilation Rate, ach	**0.68**
Net Surface Area, m2	**11.15**

ASTM D5116 Small Chamber Method

California Specification 01350
Office Paints and Wallcoverings Model: 33.4 m2
Office Flooring Products Model: 11.15 m2

	Emission Factors (ug/(m2*h))						Cm	Cm	Cm	
Compound Name	**02/16/24 24 hr Chamber Conc. ug/m3**	**24 hr EF**	**02/17/24 48 hr Chamber Conc. ug/m3**	**48 hr EF**	**02/29/24 96 hr Chamber Conc. ug/m3**	**96 hr EF**	**Office: 24 hr Modeled Air Conc. ug/m3**	**Office: 48 hr Modeled Air Conc. ug/m3**	**Office: 96 hr Modeled Air Conc. ug/m3**	**1/2 CREL 12/2008 (A)Acute (C)Chronic**
GC/MS Target, LOQ 2 ng/L (ug/m3)										
None Detected	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
GC/MS TICs, LOQ 5 ng/L (ug/m3)										
None Dectected	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
	0	0.0	0	0.0	0	0.0	0.0	0.0	0.0	
HPLC Aldehydes, LOQ 2 ng/L (ug/m3)										
Formaldehyde	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	4.5 C
Acetaldehyde	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	70 C
TVOCs LOQ 25 ng/L (ug/m3) Use 1 for < value	0.0	**0.0**	0.0	**0.0**	0.0	**0.0**	**0.0**	**0.0**	**0.0**	**ug/m3**
							0.000	**0.000**	**0.000**	**mg/m3**

Reporting Limit, 0.001 mg/m3