

1512 S BATAVIA AVENUE  
GENEVA, IL 60134  
630-232-0104

An ALION Technical Center

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WALLACE CLEMENT SABINE

## Test Report

FOR: **Allied Industries International, Inc.**  
Jonesville, SC

**Sound Absorption**  
**RAL™-A18-009**

CONDUCTED: 2018-02-06

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ON: 0.25 in. Eco-Grip Flooring

### TEST METHOD

Riverbank Acoustical Laboratories™ is accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) as an ISO 17025:2005 Laboratory (NVLAP Lab Code: 100227-0) and for this test procedure. The test reported in this document conformed explicitly with ASTM C423-17: "Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method." The specimen mounting was performed according to ASTM E795-16: "Standard Practices for Mounting Test Specimens During Sound Absorption Tests." A description of the measuring procedure and room qualifications is available upon request.

### DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as 0.25 in. Eco-Grip Flooring. A full external visual inspection performed on the test specimen by Riverbank personnel verified the manufacturer's description.

#### Test Specimen

Material: Recycled polyvinyl  
Dimensions: 1 @ 2444.75 mm (96.25 in.) x 1530.35 mm (60.25 in.)  
1 @ 2444.75 mm (96.25 in.) x 1212.85 mm (47.75 in.)  
Thickness: 6.83 mm (0.269 in.)  
Overall Weight: 57.95 kg (127.75 lbs)

#### Physical Measures

Size: 2.74 m (108.00 in.) wide by 2.44 m (96.25 in.) long  
Thickness: 6.83 mm (0.269 in.)  
Weight: 57.95 kg (127.75 lbs.)  
Mass per Unit Area: 8.64 kg/m<sup>2</sup> (1.77 lbs./ft<sup>2</sup>)  
Area: 6.71 m<sup>2</sup> (72.20 ft<sup>2</sup>)

#### Test Environment

Volume: 292.0 m<sup>3</sup> (10,311.0 ft<sup>3</sup>)  
Temperature: 20.8±0.0°C (69.5±0.0°F) (Requirement: ≥10° C and ≤5° C change)  
Humidity: 65.6±0.0% (Requirement: ≥40% RH and ≤5% change)  
Barometric Pressure: 100.1 kPa. (Requirement not defined)

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Figure 1 – Specimen mounted in the test chamber.



Figure 2 – Detail of test specimen prior to edge seal installation

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### MOUNTING METHOD

Type A Mounting: The test specimen was laid directly against the test surface. The perimeter was sealed using metal framing.

### TEST RESULTS

1/3 Octave Center Frequency (Hz)	Total Absorption (SI) (m <sup>2</sup> )	Total Absorption (IP) (Sabins)	Absorption Coefficient (Sabins / ft <sup>2</sup> )
100	-0.02	-0.26	0.00
** 125	-0.06	-0.64	-0.01
160	0.03	0.34	0.00
200	-0.07	-0.70	-0.01
** 250	0.11	1.21	0.02
315	0.29	3.14	0.04
400	0.49	5.30	0.07
** 500	0.47	5.01	0.07
630	0.42	4.49	0.06
800	0.30	3.18	0.04
** 1000	0.27	2.93	0.04
1250	0.29	3.08	0.04
1600	0.14	1.50	0.02
** 2000	0.17	1.86	0.03
2500	0.35	3.79	0.05
3150	0.39	4.20	0.06
** 4000	0.38	4.10	0.06
5000	0.76	8.20	0.11

**SAA = 0.04**

**NRC = 0.05**



NVLAP LAB CODE 100227-0

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### TEST RESULTS (Continued)

The sound absorption average (SAA) is defined as a single number rating, the average, rounded to the nearest 0.01, of the sound absorption coefficient of a material for the twelve one-third octave bands from 200 through 2500 Hz, inclusive.

The noise reduction coefficient (NRC) is defined from previous versions of this same test method as the average of the coefficients at 250, 500, 1000, and 2000 Hz, expressed to the nearest integral multiple of 0.05.

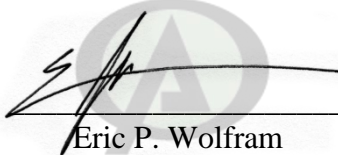
Tested by

  
Marc Sciaky  
Experimentalist

Report by

  
Malcolm Kelly  
Acoustician

Approved by

  
Eric P. Wolfram  
Laboratory Manager

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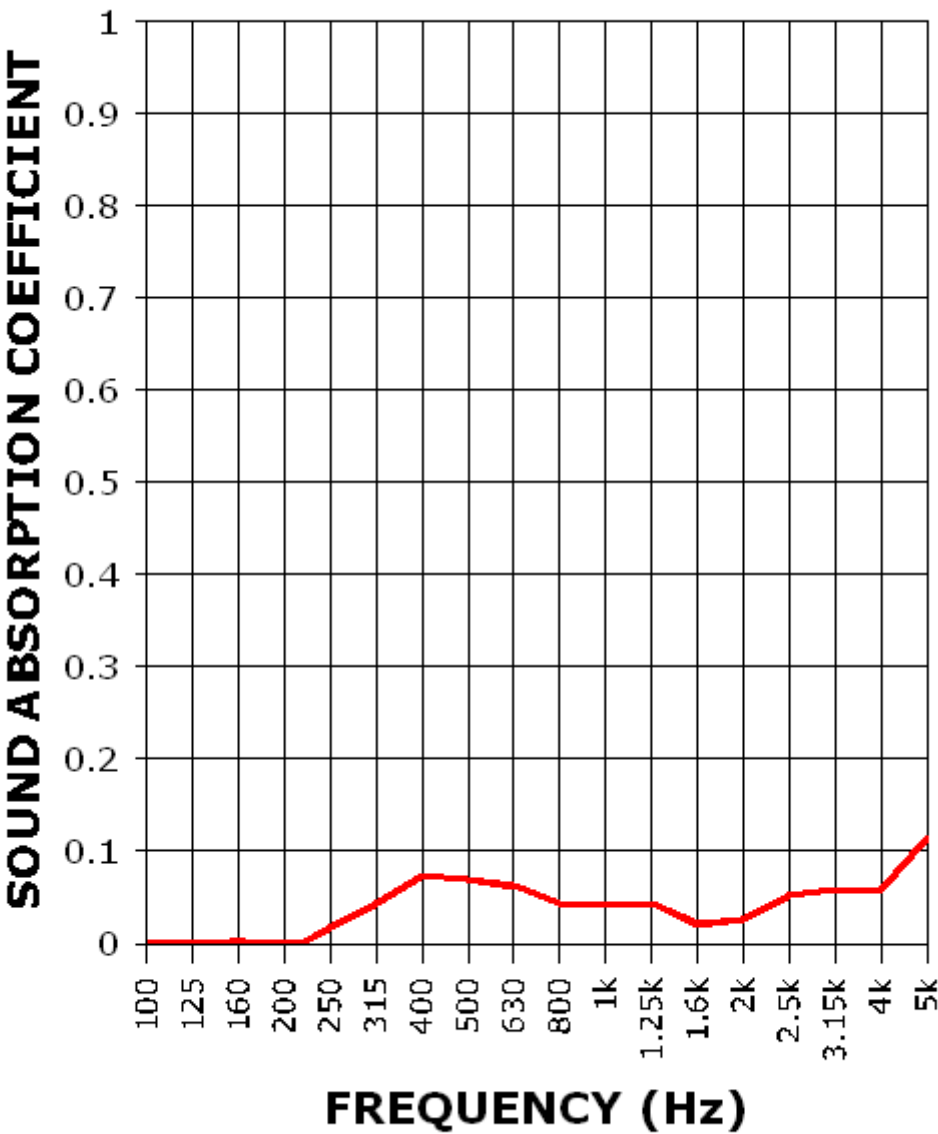
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SOUND ABSORPTION REPORT  
0.25 in. Eco-Grip Flooring



SAA = 0.04  
NRC = 0.05

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### **APPENDIX A: Extended Frequency Range Data**

Specimen: 0.25 in. Eco-Grip Flooring (See Full Report)

*The following non-accredited data were obtained in accordance with ASTM C423-17, but extend beyond the defined frequency range of 100Hz to 5,000Hz. These unofficial results are representative of the RAL test environment only and intended for research & comparison purposes.*

1/3 Octave Band Center Frequency (Hz)	Total Absorption (Sabins)	Absorption Coefficient (Sabins / ft <sup>2</sup> )
31.5	-7.94	-0.11
40	-0.96	-0.01
50	-3.27	-0.05
63	1.69	0.02
80	1.12	0.02
100	-0.26	0.00
125	-0.64	-0.01
160	0.34	0.00
200	-0.70	-0.01
250	1.21	0.02
315	3.14	0.04
400	5.30	0.07
500	5.01	0.07
630	4.49	0.06
800	3.18	0.04
1000	2.93	0.04
1250	3.08	0.04
1600	1.50	0.02
2000	1.86	0.03
2500	3.79	0.05
3150	4.20	0.06
4000	4.10	0.06
5000	8.20	0.11
6300	11.51	0.16
8000	19.01	0.26
10000	21.53	0.30
12500	38.03	0.53

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### **APPENDIX B: Instruments of Traceability**

Specimen: 0.25 in. Eco-Grip Flooring (See Full Report)

<b><u>Description</u></b>	<b><u>Model</u></b>	<b><u>Serial Number</u></b>	<b><u>Date of Certification</u></b>	<b><u>Calibration Due</u></b>
Bruel & Kjaer Pulse Analyzer - System3	Type 3560-C	2647140	2017-04-21	2018-04-21
Bruel & Kjaer Mic And Preamp C	Type 4943-B-001	2311439	2017-03-17	2018-03-17
Bruel & Kjaer Pistonphone	Type 4228	2781248	2017-08-02	2018-08-02
EXTECH-Temp	SD700	A083322	2017-11-20	2018-11-20

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END