RIVERBANK ACOUSTICAL LABORATORIES

1512 S BATAVIA AVENUE
GENEVA, IL 60134

630-232-0104

Test Report

www.riverbankacoustics.com

FOUNDED 1918 BY
WALLACE CLEMENT SABINE

SPONSOR: **Primacoustic, a Division of Radial Engineering Ltd.**
Port Coquitlam, BC, Canada

Sound Absorption
RAL™-A23-083

CONDUCTED: 2023-04-06

ON: ECOScapes Slat Wall (MDF with wood veneers face and PET backing)

TEST METHODOLOGY

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 17025:2017 Laboratory (NVLAP Lab Code: 100227-0) and for this test procedure. The test reported in this document conformed explicitly with ASTM C423-22: "Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method." The specimen mounting was performed according to ASTM E795-23: "Standard Practices for Mounting Test Specimens During Sound Absorption Tests." A description of the measurement procedure and room specifications are available upon request. The results presented in this report apply to the sample as received from the test sponsor.

INFORMATION PROVIDED BY SPONSOR

The test specimen was designated by the sponsor as ECOScapes Slat Wall (MDF with wood veneers face and PET backing). The following nominal product information was provided by the sponsor prior to testing. The accuracy of such sponsor-provided information can affect the validity of the test results.

Product Under Test

Product Name:	ECOScapes Slat Wall
Manufacturer:	Primacoustic, a Division of Radial Engineering Ltd.

SPECIMEN MEASUREMENTS & TEST CONDITIONS

Through a full external visual inspection performed on the test specimen, Riverbank personnel verified the following information:

Test Specimen

Material:	Panels comprised of wood slats over PET felt
Dimensions:	1 panel @ 305 mm (12 in.) by 2499 mm (98.375 in.)
	3 panels @ 806 mm (31.75 in.) by 2499 mm (98.375 in.)
Thickness:	PET felt @ 9.21 mm (0.3625 in.)
	Wood slats @ 12.76 mm (0.5025 in.)
	Total @ 21.01 mm (0.827 in.)
Overall Weight:	61.58 kg (135.75 lbs)

Overall Specimen Properties

Size:	2.71 m (106.5 in) wide by 2.5 m (98.375 in) long
Thickness:	0.02 m (0.827 in)
Weight:	61.58 kg (135.75 lbs)
Mass per Unit Area:	9.11 kg/m² (1.87 lbs/ft²)
Calculation Area:	6.76 m² (72.76 ft²)

Test Environment

Room Volume:	291.98 m³
Temperature:	20.3 °C ± 0.0 °C (Requirement: ≥ 10 °C and ≤ 5 °C change)
Relative Humidity:	59.0 % ± 2.0 % (Requirement: ≥ 40 % and ≤ 5 % change)
Barometric Pressure:	100.0 kPa (Requirement not defined)

MOUNTING METHOD

Type A Mounting: The test specimen was laid directly against the test surface. Perimeter edges were sealed with tape.

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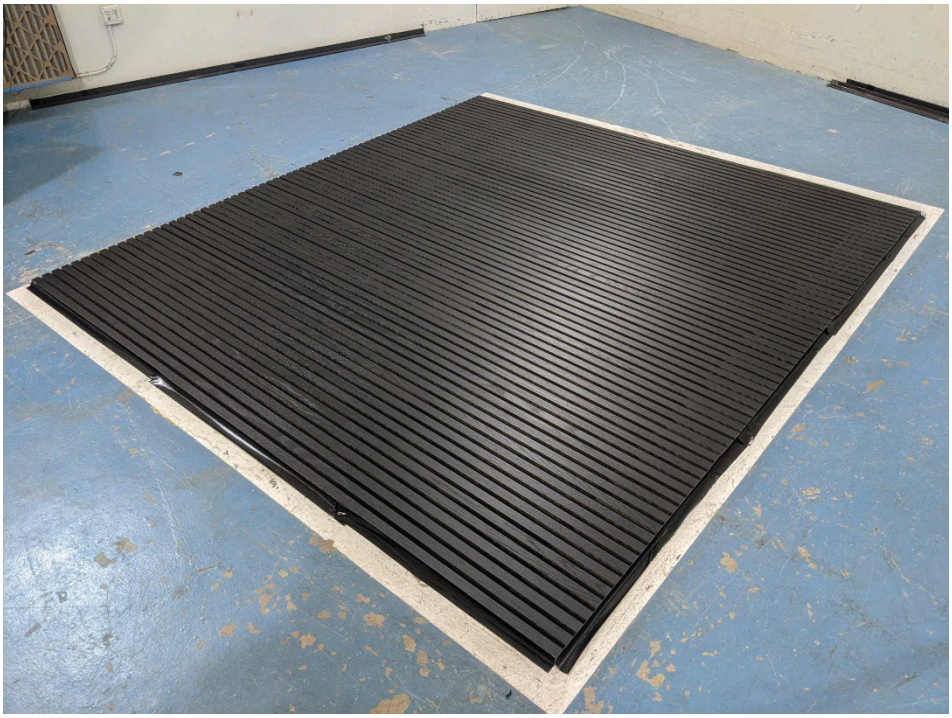

Figure 1 – Specimen mounted in test chamber

Figure 2 – Individual specimen panel

Figure 3 – Individual specimen panel

Figure 4 – Detail of specimen materials

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2023-04-06

TEST RESULTS

Specimen total absorption and absorption coefficient are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages.

1/3 Octave Center Frequency (Hz)	Total Absorption (m^2)	Total Absorption (Sabins)	Absorption Coefficient
100	0.17	1.78	0.02
** 125	-0.05	-0.50	-0.01
160	0.24	2.63	0.04
200	0.51	5.54	0.08
** 250	0.50	5.35	0.07
315	0.89	9.55	0.13
400	1.02	11.00	0.15
** 500	1.90	20.41	0.28
630	2.77	29.87	0.41
800	3.99	42.98	0.59
** 1000	5.06	54.49	0.75
1250	6.47	69.60	0.96
1600	7.14	76.83	1.06
** 2000	7.38	79.46	1.09
2500	6.82	73.44	1.01
3150	6.19	66.67	0.92
** 4000	5.73	61.64	0.85
5000	5.13	55.26	0.76

SAA = 0.55
NRC = 0.55

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TEST RESULTS (continued)

The sound absorption average (SAA) is defined in ASTM C423-17 Section 3.1.1 as the arithmetic average of the sound absorption coefficients of a material for the twelve one-third octave bands from 200 Hz through 2500 Hz, inclusive, rounded to the nearest integer multiple of 0.01.

The noise reduction coefficient (NRC) is defined from previous versions of ASTM C423 as the arithmetic average of the sound absorption coefficients at 250 Hz, 500 Hz, 1000 Hz, and 2000 Hz, rounded to the nearest integer multiple of 0.05.

Tested by _____
Marc Sciaky
Senior Experimentalist

Report by _____
Keith Kimberling
Test Engineer

Approved by _____
Eric P. Wolfram
Laboratory Manager

Digitally signed by
Eric P Wolfram
Date: 2023.04.21
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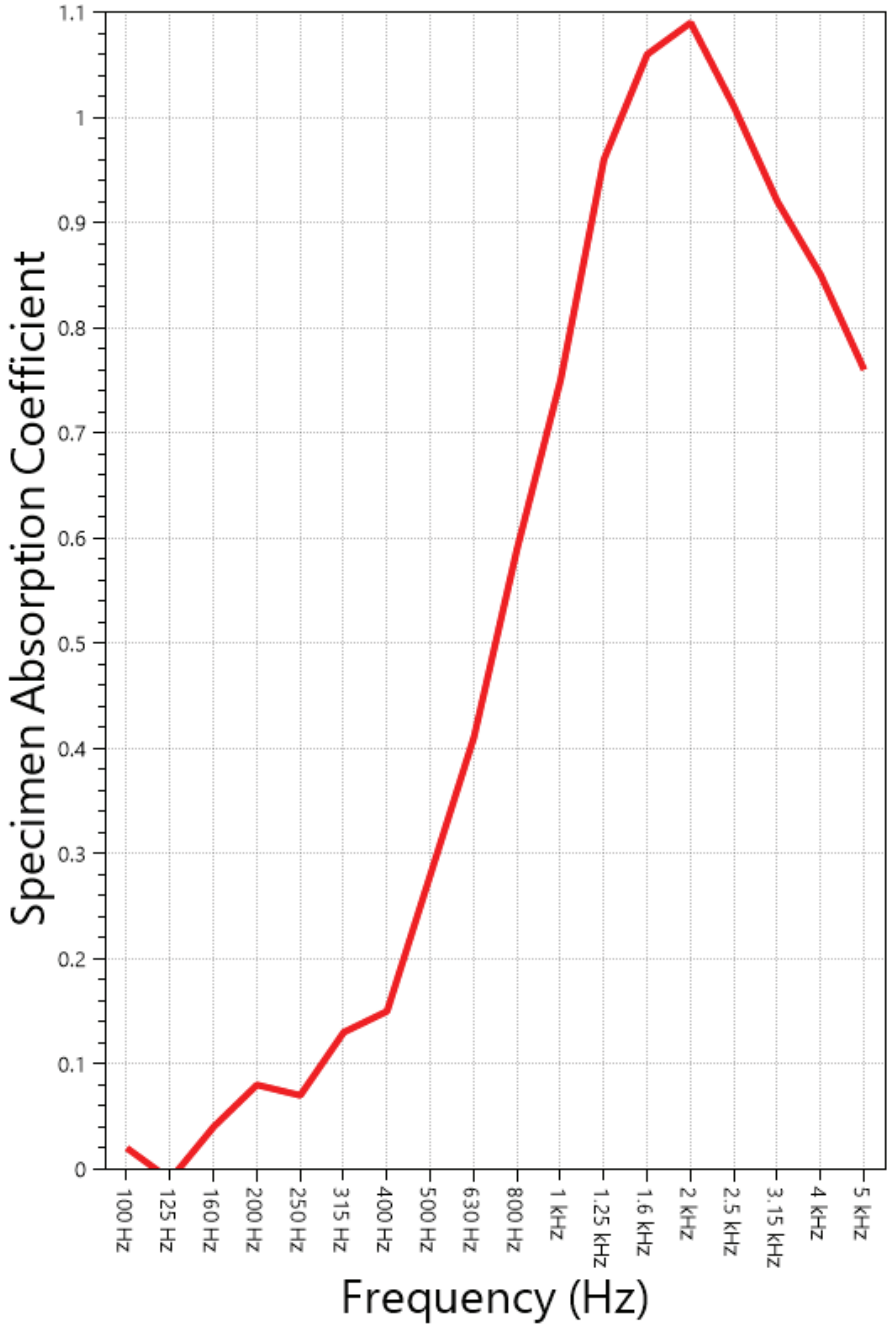
SOUND ABSORPTION REPORT

ECOScapes Slat Wall (MDF with wood veneers face and PET backing)



SAA = 0.55
NRC = 0.55

NVLAP TESTING
NVLAP LAB CODE 100227-0

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APPENDIX A: Extended Frequency Range Data

Specimen: ECOScapes Slat Wall (MDF with wood veneers face and PET backing) (See Full Report)

The following non-accredited data were obtained in accordance with ASTM C423-22, 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**
31.5	-35.79	-0.49
40	2.07	0.03
50	-2.46	-0.03
63	-1.39	-0.02
80	3.17	0.04
100	1.78	0.02
125	-0.50	-0.01
160	2.63	0.04
200	5.54	0.08
250	5.35	0.07
315	9.55	0.13
400	11.00	0.15
500	20.41	0.28
630	29.87	0.41
800	42.98	0.59
1000	54.49	0.75
1250	69.60	0.96
1600	76.83	1.06
2000	79.46	1.09
2500	73.44	1.01
3150	66.67	0.92
4000	61.64	0.85
5000	55.26	0.76
6300	45.59	0.63
8000	38.10	0.52
10000	33.38	0.46
12500	17.07	0.23

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2023-04-06

APPENDIX B: Instruments of Traceability

Specimen: ECOScapes Slat Wall (MDF with wood veneers face and PET backing) (See Full Report)

Description	Model	Serial Number	Date of Certification	Calibration Due
System 1	Type 3160-A-042	3160-106968	2022-07-12	2023-07-12
Bruel & Kjaer Mic And Preamp D	Type 4943-B-001	2311440	2022-09-28	2023-09-28
Bruel & Kjaer Pistonphone	Type 4228	2781248	2022-07-22	2023-07-22
EXTECH Hygro 639	SD700	A.103639	2022-12-07	2023-12-07

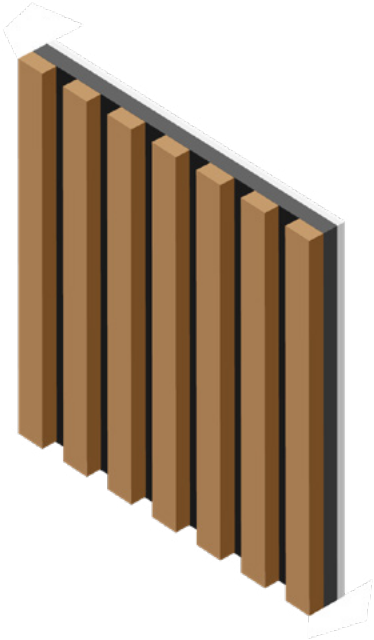
APPENDIX C: Revisions to Original Test Report

Specimen: ECOScapes Slat Wall (MDF with wood veneers face and PET backing) (See Full Report)

Date	Revision
2023-04-18	Original report issued

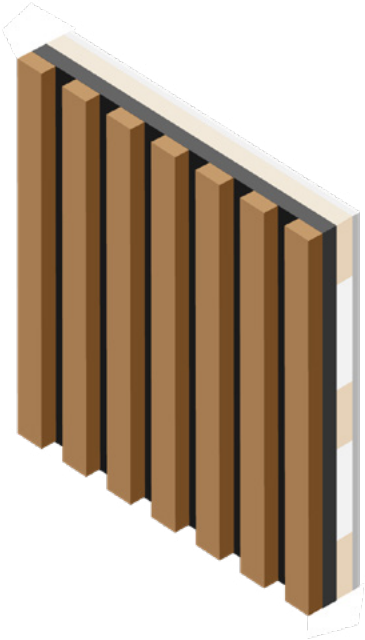
END

Mounting Types Explained



A Mount

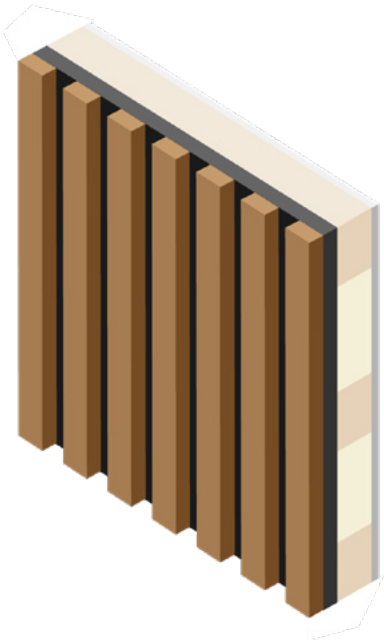
Panel is mounted directly to wall.



C25 Mount

Panel is mounted on 1" thick furring strips, spaced 24" apart.

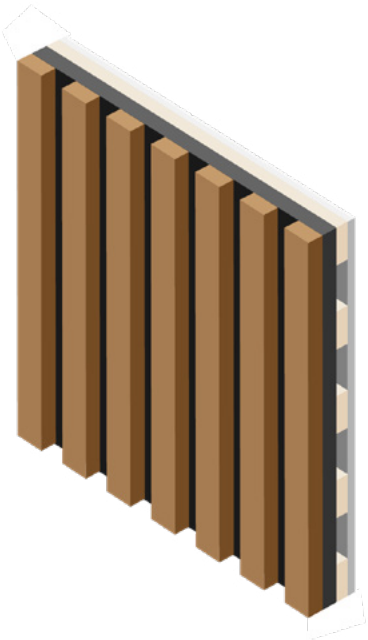
Cavities are filled with strips of 1" thick Telafill.



C50 Mount

Panel is mounted on 2" thick furring strips, spaced 24" apart.

Cavities are filled with strips of 2" thick Broadway Glass Wool.



D20 Mount

Panel is mounted on ¾" thick furring strips, spaced 12" apart.

Cavities are left empty.