

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

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FOUNDED 1918 BY
WALLACE CLEMENT SABINE

Test Report

SPONSOR: **Frasch**
Arlington, TX

CONDUCTED: 2021-07-20

ON: Stratawood LITE panels (Type A mounting)

Sound Absorption
RAL™-A21-417

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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 C423-17: "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 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 Stratawood LITE panels (Type A mounting). 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

Trade Name: Stratawood LITE
Thickness: 10 mm (0.394 in.)
Manufacturer: Frasch

SPECIMEN MEASUREMENTS & TEST CONDITIONS

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

Test Specimen

Materials: Wood veneer slats adhered to semirigid felt paneling
Dimensions: 5 panels @ 600 mm (23.625 in.) by 2402 mm (94.56 in.)
Slats, 15 per panel @ 25 mm (0.984 in.) wide, spaced 40 mm (1.575 in.) on centers
Thickness: Maximum, over slats @ 10 mm (0.394 in.)
Minimum, between slats @ 5 mm (0.197 in.)
Overall Weight: 12.25 kg (27 lbs)
Installation: Slats exposed to sound field
Edges butted at joints; slat spacing preserved panel to panel

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Overall Specimen Properties

Size: 3. m (118.25 in) wide by 2.4 m (94.562 in) long
Thickness: 0.01 m (0.391 in)
Weight: 12.25 kg (27.0 lbs)
Mass per Unit Area: 1.7 kg/m² (0.35 lbs/ft²)
Calculation Area: 7.214 m² (77.65 ft²)

Test Environment

Room Volume: 291.98 m³
Temperature: 21.9 °C ± 0.1 °C (Requirement: ≥ 10 °C and ≤ 5 °C change)
Relative Humidity: 64.85 % ± 1.7 % (Requirement: ≥ 40 % and ≤ 5 % change)
Barometric Pressure: 99.0 kPa (Requirement not defined)

MOUNTING METHOD

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

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Figure 1 – Specimen mounted in test chamber



Figure 2 – Individual specimen panel

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Figure 3 – Individual specimen panel, face mated to horizontal test surface



Figure 4 – Detail of specimen materials

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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	0.34	3.65	0.05
** 125	0.35	3.74	0.05
160	0.15	1.58	0.02
200	0.25	2.71	0.03
** 250	0.15	1.58	0.02
315	0.37	4.00	0.05
400	0.57	6.16	0.08
** 500	1.11	12.00	0.15
630	1.55	16.70	0.22
800	2.35	25.31	0.33
** 1000	3.38	36.37	0.47
1250	4.47	48.09	0.62
1600	5.39	58.06	0.75
** 2000	6.52	70.20	0.90
2500	7.58	81.55	1.05
3150	7.90	85.04	1.10
** 4000	7.53	81.05	1.04
5000	6.63	71.40	0.92

SAA = 0.39

NRC = 0.40

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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.

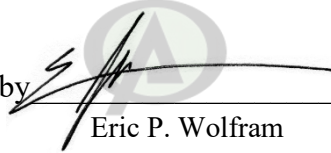
Tested by


Marc Sciaky
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Eric P. Wolfram
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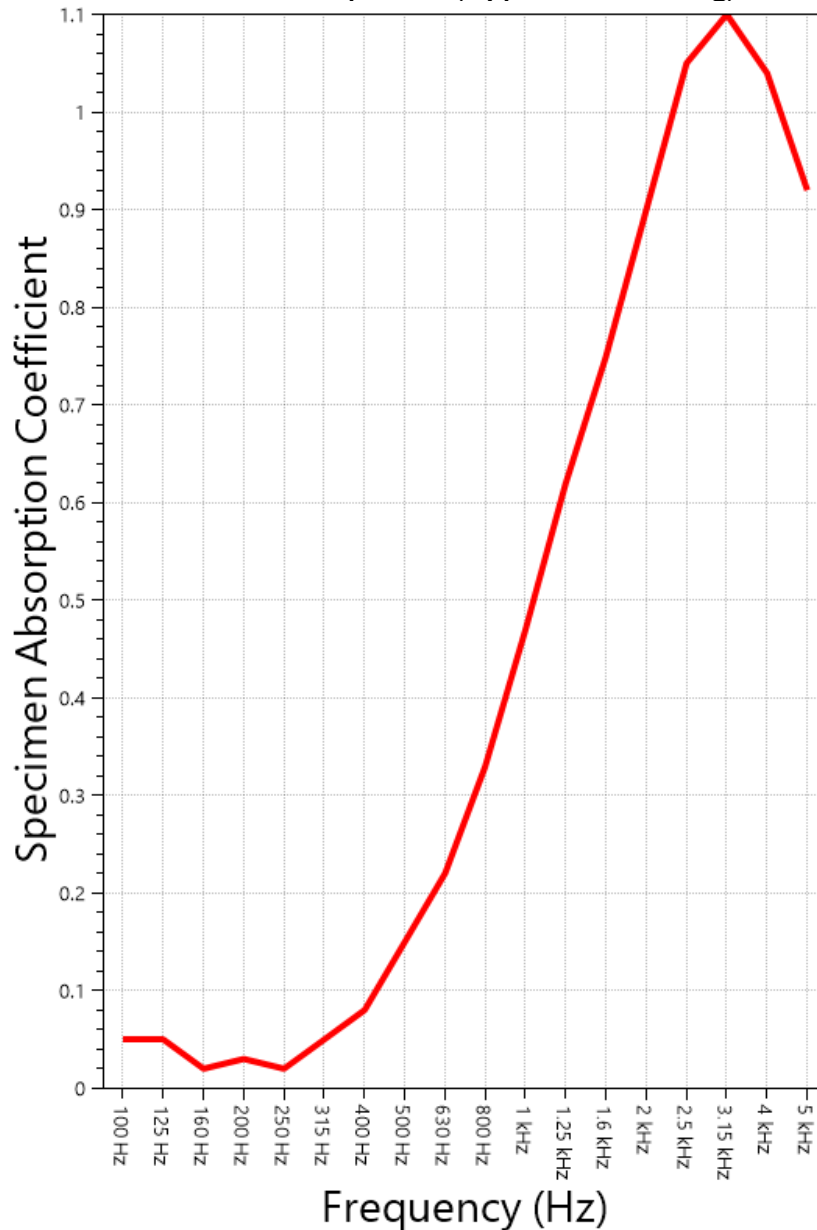
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SOUND ABSORPTION REPORT Stratawood LITE panels (Type A mounting)



SAA = 0.39

NRC = 0.40

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APPENDIX A: Extended Frequency Range Data

Specimen: Stratawood LITE panels (Type A mounting) (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
31.5	7.44	0.10
40	-6.28	-0.08
50	4.52	0.06
63	5.94	0.08
80	-0.29	0.00
100	3.65	0.05
125	3.74	0.05
160	1.58	0.02
200	2.71	0.03
250	1.58	0.02
315	4.00	0.05
400	6.16	0.08
500	12.00	0.15
630	16.70	0.22
800	25.31	0.33
1000	36.37	0.47
1250	48.09	0.62
1600	58.06	0.75
2000	70.20	0.90
2500	81.55	1.05
3150	85.04	1.10
4000	81.05	1.04
5000	71.40	0.92
6300	56.92	0.73
8000	48.14	0.62
10000	41.76	0.54
12500	37.91	0.49

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APPENDIX B: Instruments of Traceability

Specimen: Stratawood LITE panels (Type A mounting) (See Full Report)

<u>Description</u>	<u>Model</u>	<u>Serial Number</u>	<u>Date of Certification</u>	<u>Calibration Due</u>
System 1	Type 3160-A-042	3160- 106968	2021-07-01	2022-07-01
Bruel & Kjaer Mic And Preamp A	Type 4943-B-001	2311428	2020-09-30	2021-09-30
Bruel & Kjaer Pistonphone	Type 4228	2781248	2020-08-12	2021-08-12
EXTECH Hygro 639	SD700	A.103639	2020-12-18	2021-12-18

APPENDIX C: Revisions to Original Test Report

Specimen: Stratawood LITE panels (Type A mounting) (See Full Report)

<u>Date</u>	<u>Revision</u>
2021-07-23	Original report issued

END