

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

FOR: Audimute Soundproofing
Beachwood, OH

Sound Absorption
RAL™-A13-283

CONDUCTED: 10 October 2013

Page 1 of 6

ON: Audimute Sound Absorbing Sheets

TEST METHOD

The test method conformed explicitly with the requirements of the ASTM Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method: ASTM C423-09a and E795-05. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure (NVLAP Lab Code: 100227-0). A description of the measuring procedure and room qualifications is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as Audimute Sound Absorbing Sheets with eco-C-tex™ proprietary sound absorbing woven mesh insulate/filler. A visual inspection by Riverbank staff verified the manufacturer's description, further disclosing a 0.62 to 0.70 inch thick quilted blanket with nylon perimeter and grommets. From front to back, the specimen consisted of 0.014 inch thick green fabric, 0.60 inch thick recycled cotton core, 0.025 inch thick mesh fabric backing.

The specimen consisted of 2 pieces laid together as a single rectangular patch. The overall dimensions of the specimen as measured were 2.74 m (108.00 in.) wide by 2.44 m (96.00 in.) long and 15.75 mm (0.62 in.) thick. The area used in the calculations was 6.69 m² (72.00 ft²). The weight of the entire specimen as measured was 8.85 kg (19.50 lbs), an average of 1.32 kg/m² (0.27 lbs/ft²).

The specimen was tested in the laboratory's 292.0 m³ (10,311.0 ft³) test chamber. The room temperature at the time of the test was 21.1±0.0°C (70.0±0.0°F) and 60.5±1.5% relative humidity. The atmospheric pressure was 99.33 kPa.



NVLAP Lab Code 100227-0

ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

This report shall not be reproduced except in full, without the written approval of RAL.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

Audimute Soundproofing
10 October 2013

RAL™-A13-283
Page 2 of 6

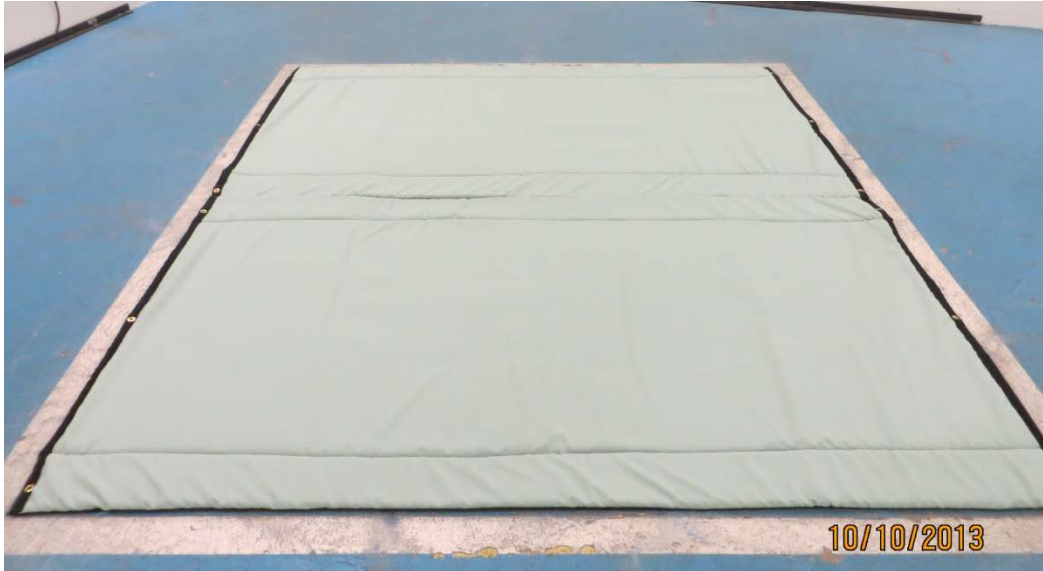


Figure 1 - Specimen mounted in the test chamber.



Figure 2 - Detail of the test specimen.



NVLAP Lab Code 100227-0

ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

This report shall not be reproduced except in full, without the written approval of RAL.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

Audimute Soundproofing
10 October 2013

RAL™-A13-283
Page 3 of 6

MOUNTING A

The test specimen was laid directly against the test surface. The perimeter edges were unsealed, as would be typical of an actual installation of this material.

TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	0.05	3.45
** 125	0.12	8.84
160	0.07	5.37
200	0.18	13.00
** 250	0.17	12.11
315	0.32	22.76
400	0.46	32.77
** 500	0.55	39.58
630	0.69	49.43
800	0.77	55.41
** 1000	0.88	63.59
1250	0.95	68.22
1600	1.01	72.96
** 2000	1.04	74.99
2500	1.08	77.49
3150	1.08	77.96
** 4000	1.02	73.36
5000	1.05	75.36

SAA = 0.68

NRC = 0.65



NVLAP Lab Code 100227-0

ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

This report shall not be reproduced except in full, without the written approval of RAL.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

Audimute Soundproofing
10 October 2013

RAL™-A13-283
Page 4 of 6

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  Approved by _____
Marc Sciaky
Experimentalist
Eric P. Wolfram
Laboratory Manager



NVLAP Lab Code 100227-0

ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

This report shall not be reproduced except in full, without the written approval of RAL.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

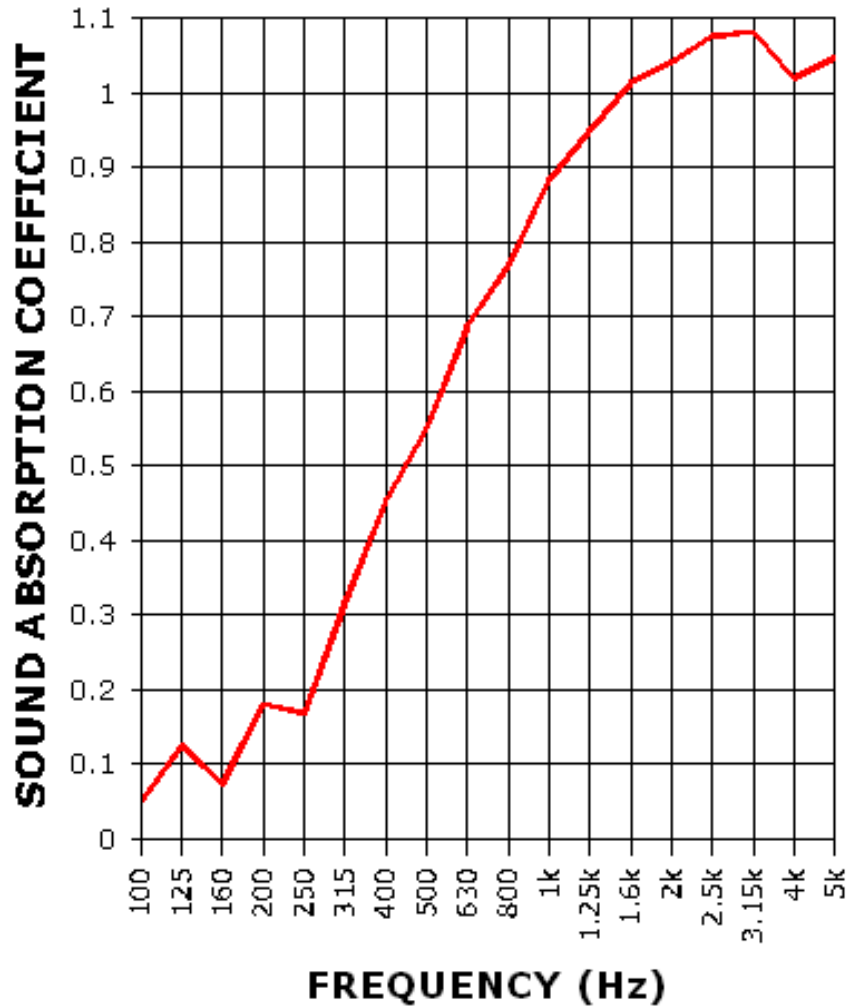
630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

Audimute Soundproofing
10 October 2013

RAL™-A13-283
Page 5 of 6

SOUND ABSORPTION REPORT Audimute Sound Absorbing Sheets (Green Fabric Facing Source)



SAA = 0.68

NRC = 0.65



NVLAP Lab Code 100227-0

ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

This report shall not be reproduced except in full, without the written approval of RAL.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

Audimute Soundproofing
10 October 2013

RAL™-A13-283
Page 6 of 6

Appendix to ASTM C423 Sound Absorption Test **Extended Frequency Range Data**

Product Description: Audimute Sound Absorbing Sheets (Green Fabric Facing Source) (See Full Report)

Riverbank Acoustical Laboratories is accredited to perform sound absorption coefficient measurements for the frequency range of 100Hz to 5,000Hz. However, we calculate sound absorption values at additional test frequencies as a service to our clients.

Although these measurements were made in accordance with the procedures described in ASTM C423-09a, they do not qualify as part of the standard. Since the results are representative of the test environment only, they are unofficial and intended for research and development guidelines rather than for commercial purposes. The sound absorption values at additional frequencies were as follows:

RAL-A13-283

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption (Sabins)
40	0.27	19.47
50	0.42	30.38
63	-0.07	-5.28
80	0.00	0.30
6300	1.07	76.78
8000	1.22	87.83
10000	1.15	82.84



NVLAP Lab Code 100227-0

**ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.**

This report shall not be reproduced except in full, without the written approval of RAL.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.