

**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 Test RAL<sup>TM</sup>-A10-005

Audimute Acoustical Absorption 2" Eco-c-Tex Wall/Ceiling ON: Tile

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CONDUCTED: 11 January 2010

#### **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 C423-08a 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 client as Audimute Acoustical Absorption 2" Eco-c-Tex Wall/Ceiling Tile. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.74 m (108 in.) long and 51 mm (2 in.) thick. The specimen consisted of ten (10) pieces. Eight (8) pieces were nominally 610 mm (24 in.) wide by 1.22 m (48 in.) long. Two (2) pieces were nominally 305 mm (12 in.) wide by 1.22 m (48 in.) long. All pieces were 51 mm (2 in.) thick. The specimen was tested in the laboratory's 292 m<sup>3</sup> (10,311 ft<sup>3</sup>) test chamber.

The weight of the entire specimen as measured was 16.3 kg (36 lbs), an average of 2.4 kg/m<sup>2</sup>  $(0.5 \text{ lbs/ft}^2)$ . The area used in the calculations was 6.7 m<sup>2</sup> (72 ft<sup>2</sup>). The room temperature at the time of the test was  $21^{\circ}$ C (70°F) and  $63\pm1\%$  relative humidity.

### MOUNTING A

The test specimen was laid directly against the test surface. The perimeter was sealed using metal framing.

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RIVERBANK ACOUSTICAL LABORATORIES

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### TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	0.23	16.73
** 125	0.22	15.75
160	0.30	21.71
200	0.47	33.70
** 250	0.66	47.64
315	0.90	64.51
400	1.07	76.88
** 500	1.12	80.54
630	1.18	85.28
800	1.15	82.78
** 1000	1.10	79.24
1250	1.10	79.06
1600	1.07	77.13
** 2000	1.07	76.85
2500	1.06	76.56
3150	1.07	77.03
** 4000	1.11	79.89
5000	1.15	82.74
	SAA - 1.00	

SAA = 1.00NRC = 1.00

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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 \_\_\_\_\_

Den Otto

Dean Victor Senior Experimentalist

\_ Approved by\_\_\_\_\_

David L. Moyer Laboratory Manager

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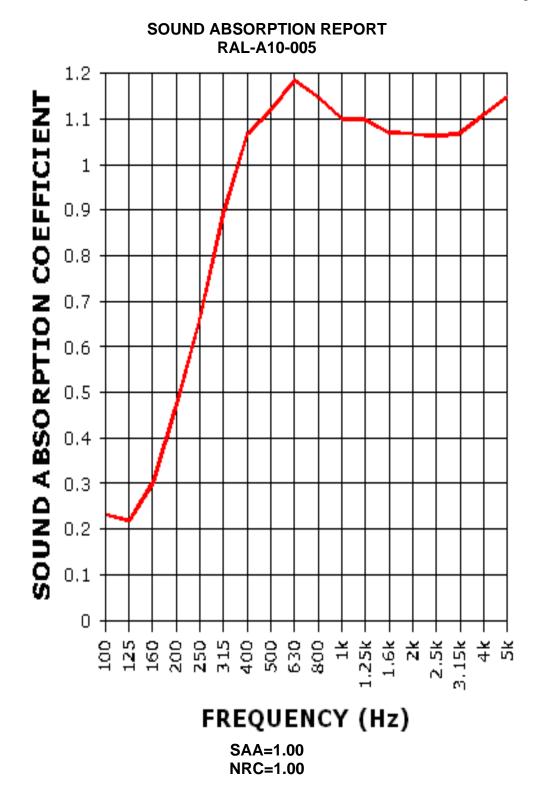
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