

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: Foam Factory Inc.
Clinton Township, MI

Sound Absorption Test
RAL™-A11-058

ON: Auralex 4 Inch Studiofoam Pyramids

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CONDUCTED: 10 March 2011

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 client as Auralex 4 Inch Studiofoam Pyramids. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.74 m (108 in.) long and 102 mm (4 in.) thick. The specimen consisted of twelve (12) pieces. Eight (8) pieces were nominally 610 mm (24 in.) wide by 1.22 m (48 in.) long. Four (4) pieces were nominally 298 mm (12 in.) wide by 610 mm (24 in.) long. The specimen was tested in the laboratory's 292 m³ (10,311 ft³) test chamber.

The description of the specimen was as follows: Auralex 4 Inch Studiofoam Pyramids. Flame-retardant stock designed 4516R, a high density (1.5-1.7 pcf) open cell polyurethane foam rubber. A visual inspection verified the manufacturer's description of the specimen.

The weight of the entire specimen as measured was 8.2 kg (18 lbs), an average of 1.2 kg/m² (0.3 lbs/ft²). The area used in the calculations was 6.7 m² (72 ft²). The room temperature at the time of the test was 21°C (70±1°F) and 62% 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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NVLAP Lab Code 100227-0

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TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	0.26	18.56
** 125	0.28	20.21
160	0.27	19.79
200	0.32	23.20
** 250	0.51	36.60
315	0.80	57.31
400	0.93	66.95
** 500	1.04	74.94
630	1.08	77.65
800	1.08	77.70
** 1000	1.08	77.54
1250	1.07	77.28
1600	1.04	74.85
** 2000	1.06	76.30
2500	1.03	73.81
3150	1.04	75.13
** 4000	1.03	74.38
5000	1.02	73.41

SAA = 0.92

NRC = 0.90

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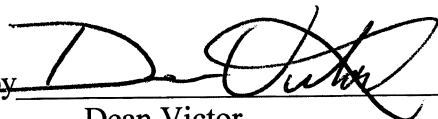
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TEST RESULTS (Continued)

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.

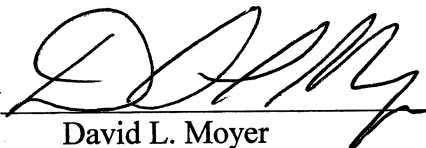
The noise reduction coefficient (NRC) is defined from previous versions of this same test method as the average of the coefficients at 250, 500, 1000, and 2000 Hz, expressed to the nearest integral multiple of 0.05.

Tested by



Dean Victor
Senior Experimentalist

Approved by



David L. Moyer
Laboratory Manager

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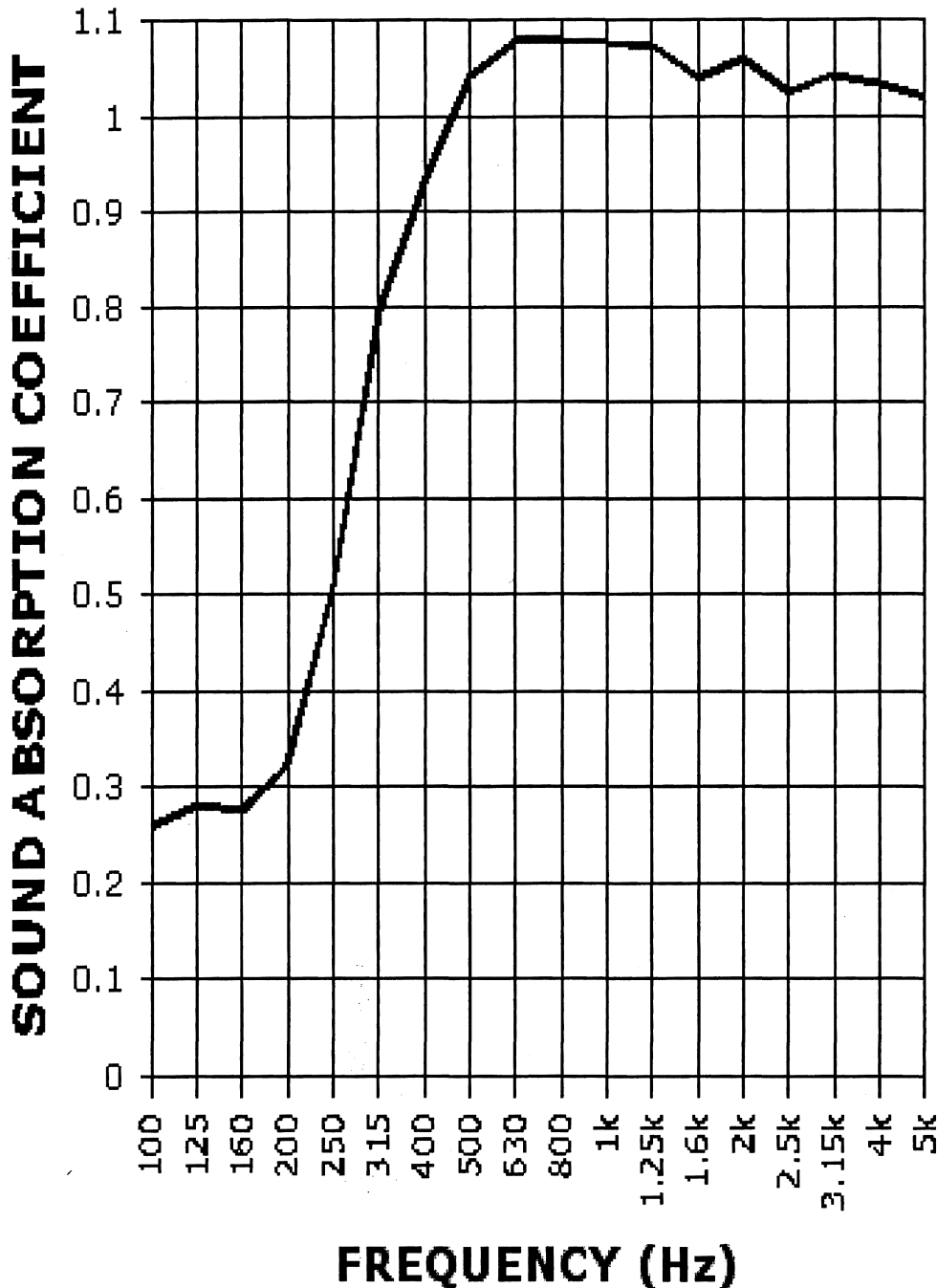
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SOUND ABSORPTION REPORT RAL-A11-058



SAA=0.92
NRC=0.90

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