

RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE
GENEVA ILLINOIS 60134

OF
IIT RESERCH INSTITUTE

708/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Auralex Acoustics

Auralex™
4" Studiofoam Pyramids

Sound Absorption Test
RAL™-A97-48

ON: 4" Studiofoam Pyramids

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CONDUCTED: 18 March 1997

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 C423-90a and E795-92. 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. A description of the measuring technique is available separately. The microphone used was a Bruel & Kjaer serial number 1330828.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as 4" Studiofoam pyramids. The overall dimensions of the specimen as measured were 2.44 m (96 in.) wide by 2.44 m (96 in.) high and 102 mm (4 in.) thick. The specimen consisted of eight units that measured 610 mm (24 in.) wide by 1.22 m (48 in.) long and 102 mm (4 in.) thick. The specimen was tested in the laboratory's 292 m³ (10,311 ft³) test chamber. The manufacturer's description of the specimen was as follows: The 4" Studiofoam was a 102 mm (4 in.) thick, pyramid cut, open cell, polyurethane foam with a 25 mm (1 in.) base, and a 76mm (3 in.) pyramid height. A visual inspection verified the manufacturer's description of the specimen. The weight of the specimen as measured was 8.2 kg (18 lbs) an average of 1.37 kg/m² (0.28 lbs/ft²) The area used in the calculations was 6.0 m² (64 ft²). The room temperature at the time of the test was 21°C (70°F) and 62% relative humidity.

MOUNTING A

The test specimen was laid directly against the test surface.

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



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TEST RESULTS

1/3 Octave Center Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins	% Of Uncertainty With 95% Confidence Limit With Specimen
100	0.21	13.71	3.20
★ 125	0.27	17.30	2.78
160	0.28	17.88	2.54
200	0.37	23.42	1.75
★ 250	0.50	32.02	1.59
315	0.70	45.05	1.27
400	0.85	54.31	1.49
★ 500	1.01	64.34	1.22
630	1.09	69.85	0.97
800	1.13	72.08	0.87
★ 1000	1.13	72.52	0.81
1250	1.13	72.19	0.77
1600	1.12	71.37	0.62
★ 2000	1.11	71.10	0.60
2500	1.12	71.66	0.63
3150	1.09	69.95	0.49
★ 4000	1.12	71.51	0.50
5000	1.13	72.58	0.54

NRC - 0.95

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