

# 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™  
3" Studiofoam Wedges

Sound Absorption Test  
RAL™-A96-251

ON: 3" STUDIOFOAM Sound Absorbent Wedges

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CONDUCTED: 13 August 1996

### 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 E795-93. 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 3" STUDIOFOAM sound absorbent wedges. The overall dimensions of the specimen measured 2.44 m (96 in.) wide by 2.44 m (96 in.) long and 76 mm (3 in.) thick. The specimen consisted of eight units. Each unit as measured was 610 mm (24 in.) wide by 1.22 m (48 in.) long. The specimen was tested in the laboratory's 292 m<sup>3</sup> (10,311 ft<sup>3</sup>) test chamber. The manufacturer's description of the specimen was as follows: STUDIOFOAM was formulated of flame-retardant high density (1.5-1.7 pcf) open cell polyurethane foam rubber that was cut in an anechoic wedge design. The thickness was 76 mm (3 in.) at the peaks and 25 mm (1 in.) at the base. The wedges were spaced 51 mm (2 in.) tip to tip. A visual inspection verified the manufacturer's description of the specimen. The weight of the specimen as measured was 7.7 kg (17 lbs) an average of 1.3 kg/m<sup>2</sup> (0.27 lbs/ft<sup>2</sup>). The area used in the calculations was 5.9 m<sup>2</sup> (64 ft<sup>2</sup>). The room temperature at the time of the test was 22°C (71°F) and 63% relative humidity.

### MOUNTING A

The test specimen was laid directly on the floor 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	0.17	10.89	3.48
★★ 125	0.23	14.52	2.99
160	0.19	11.91	2.42
200	0.31	20.09	2.02
★★ 250	0.49	31.46	1.92
315	0.71	45.43	1.47
400	0.87	55.88	1.28
★★ 500	1.06	67.75	1.25
630	1.10	70.32	1.22
800	1.05	67.26	1.02
★★ 1000	1.04	66.45	0.98
1250	1.03	65.65	0.90
1600	0.97	62.35	0.79
★★ 2000	0.96	61.64	0.76
2500	0.98	62.89	0.61
3150	1.01	64.91	0.66
★★ 4000	1.05	67.18	0.48
5000	1.03	66.07	0.53

NRC = 0.90

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