

# RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE  
GENEVA ILLINOIS 60134

OF  
IIT RESEARCH INSTITUTE

708/232-0104  
FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

## REPORT

FOR: Auralex Acoustics

Auralex™  
2" Metro

Sound Absorption Test  
RAL™-A98-82

ON: 2" Auralex Metro

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CONDUCTED: 28 May 1998

### 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 2" Auralex Metro. The overall dimensions of the specimen as measured were 2.44 m (96 in.) wide by 2.44 m (96 in.) high and 51 mm (2 in.) thick. The specimen consisted of eight units that measured nominally 1.2 m (48 in.) wide by 610 mm (24 in.) long and 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 manufacturer's description of the specimen was as follows: The specimen was a 1.7# density Auralex Studiofoam™ cut into nested pairs yielding individual pieces containing flat-topped protrusions of varying heights and widths. A visual inspection verified the manufacturer's description of the specimen. The weight of the specimen as measured was 4.9 kg (10.75 lbs) an average of 0.8 kg/m<sup>2</sup> (0.17 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 21°C (70°F) and 60% 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.

NVLAP

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ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.  
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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	0.08	5.98	2.96
★★ 125	0.13	9.21	2.80
160	0.09	6.50	2.11
200	0.18	13.26	1.85
★★ 250	0.23	16.34	1.37
315	0.35	25.46	1.10
400	0.47	33.75	1.13
★★ 500	0.68	48.94	1.06
630	0.82	59.16	0.79
800	0.90	64.50	0.84
★★ 1000	0.93	66.86	0.75
1250	0.96	68.80	0.68
1600	0.92	66.43	0.62
★★ 2000	0.91	65.45	0.59
2500	0.89	63.79	0.54
3150	0.87	62.91	0.50
★★ 4000	0.89	64.33	0.53
5000	0.92	65.91	0.51

NRC = 0.70

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