

RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE
GENEVA ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

708/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: USAFoam

Auralex™
2" Wediges

Sound Absorption Test
RAL™-A95-57

ON: WEDGIES Sound Absorbent Wedges

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CONDUCTED: 24 February 1995

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 792729.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as WEDGIES sound absorbent wedges. The overall dimensions of the specimen as measured were 2.44 m (96 in.) wide by 1.82 m (72 in.) long and 51 mm (2.0 in.) thick. The specimen consisted of forty-eight pieces. Each piece as measured was 305 mm (12 in.) wide by 305 mm (12 in.) long by 51 mm (2 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: WEDGIES 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 51 mm (2 in.) at the peaks and 13 mm (0.5 in.) at the base. A visual inspection verified the manufacturer's description of the specimen. The weight of the specimen as measured was 3.7 kg (8.25 lbs) an average of 0.83 kg/m² (0.17 lbs/ft²). The area used in the calculations was 4.5 m² (48 ft²). 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.



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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	0.15	7.06	3.17
★★ 125	0.15	6.98	2.27
160	0.10	5.04	2.36
200	0.19	8.93	1.56
★★ 250	0.21	10.18	1.32
315	0.36	17.15	1.18
400	0.45	21.75	1.28
★★ 500	0.70	33.54	1.04
630	0.90	43.16	0.84
800	0.99	47.42	0.79
★★ 1000	0.99	47.31	0.70
1250	1.05	50.50	0.74
1600	1.05	50.26	0.58
★★ 2000	1.05	50.45	0.50
2500	1.01	48.38	0.55
3150	1.03	49.57	0.42
★★ 4000	1.05	50.30	0.48
5000	1.08	51.98	0.49

NRC = 0.75

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