

RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE
GENEVA ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

708/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

Sound Absorption Test
RAL™-A96-74

FOR: USAFoam

Auralex™
LENRD Bass Traps

ON: LENRD Bass Trap

Page 1 of 4

CONDUCTED: 4 March 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 LENRD Bass Trap. The overall dimensions of the specimen as measured were 2.41 m (95 in.) wide by 2.36 m (93 in.) long and 305 mm (12 in.) thick. The specimen consisted of forty-eight pieces. Each piece measured 305 mm (12 in.) wide by 406 mm (16 in.) long by 305 mm (12 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 LENRD (Low End Node Reduction Device) Bass Trap was a three-dimensional, triangular piece of open cell polyurethane foam, approximately 1.7 lbs. density. The wedge face contained a consistent, vertical pattern of peaks, valleys and plateaus, each of varying widths and depths. A visual inspection verified the manufacturer's description of the specimen. The weight of the specimen as measured was 23.8 kg (52.5 lbs) an average of 4.2 kg/m² (0.85 lbs/ft²). The area used in the calculations was 5.7 m² (61.5 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.



ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE
GENEVA ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

708/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

USAfoam

Auralex™
LENRD Bass Traps

RAL™-A96-74

4 March 1996

Page 2 of 4

TEST RESULTS

1/3 Octave Center Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins	% Of Uncertainty With 95% Confidence Limit With Specimen
100	0.97	59.62	3.10
** 125	1.24	75.97	3.06
160	1.11	68.46	2.73
200	1.28	78.55	2.38
** 250	1.28	78.68	1.56
315	1.39	85.28	1.80
400	1.45	89.38	1.67
** 500	1.45	89.46	1.44
630	1.45	89.11	1.05
800	1.39	85.70	0.82
** 1000	1.39	85.33	0.83
1250	1.32	80.96	0.70
1600	1.30	79.93	0.65
** 2000	1.27	78.15	0.58
2500	1.26	77.65	0.67
3150	1.27	78.33	0.52
4000	1.31	80.64	0.50
** 5000	1.37	84.09	0.47

NRC = 1.35

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



ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.