

RIVERBANK ACOUSTICAL LABORATORIES

1512 BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Troy Acoustics Corporation

Sound Absorption Test
RAL™-A97-133

ON: Troy Absorption

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CONDUCTED: 8 August 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 E795-93. 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.

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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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 | 0.88 | 56.30 | 3.03 |
| ** 125 | 0.78 | 49.76 | 2.96 |
| 160 | 0.74 | 47.20 | 2.10 |
| ** 200 | 1.06 | 67.79 | 1.86 |
| ** 250 | 1.20 | 76.74 | 1.83 |
| 315 | 1.27 | 81.20 | 1.57 |
| ** 400 | 1.27 | 81.44 | 1.32 |
| ** 500 | 1.11 | 71.02 | 1.03 |
| 630 | 1.02 | 65.07 | 0.99 |
| ** 800 | 0.99 | 63.64 | 0.93 |
| ** 1000 | 1.01 | 64.58 | 0.69 |
| 1250 | 1.14 | 72.79 | 0.73 |
| ** 1600 | 1.18 | 75.25 | 0.64 |
| ** 2000 | 1.09 | 69.78 | 0.62 |
| 2500 | 1.06 | 67.79 | 0.63 |
| ** 3150 | 1.08 | 69.03 | 0.49 |
| ** 4000 | 1.07 | 68.37 | 0.50 |
| 5000 | 1.09 | 69.90 | 0.45 |

NRC = 1.10

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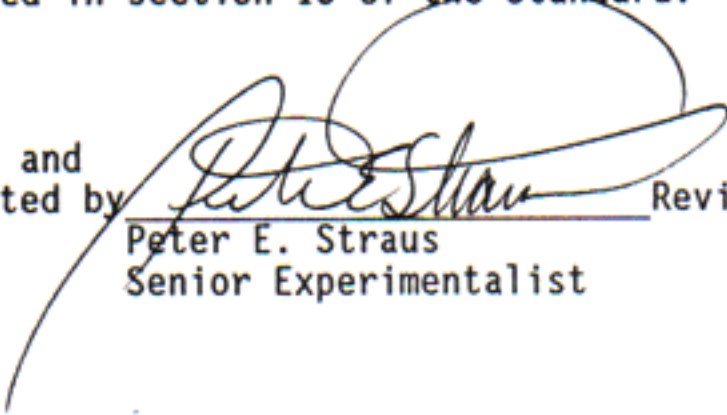
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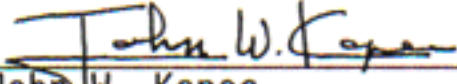
TEST RESULTS (con't)

The percentage of uncertainty for the required 95% confidence limits indicated above must fall within the prescribed limits designated in par. 13.2 of ASTM C423-90a. It states that for the absorption of the reverberation room containing the specimen the testing laboratory shall obtain data with less than 4% uncertainty at 125 (hertz) and 2% uncertainty at 250, 500, 1000, 2000, and 4000 (hertz). The method of calculation is described in ASTM STP 15D and outlined in section 13 of the standard.

Tested and
Submitted by


Peter E. Straus
Senior Experimentalist

Reviewed by


John W. Kopec
Laboratory Manager

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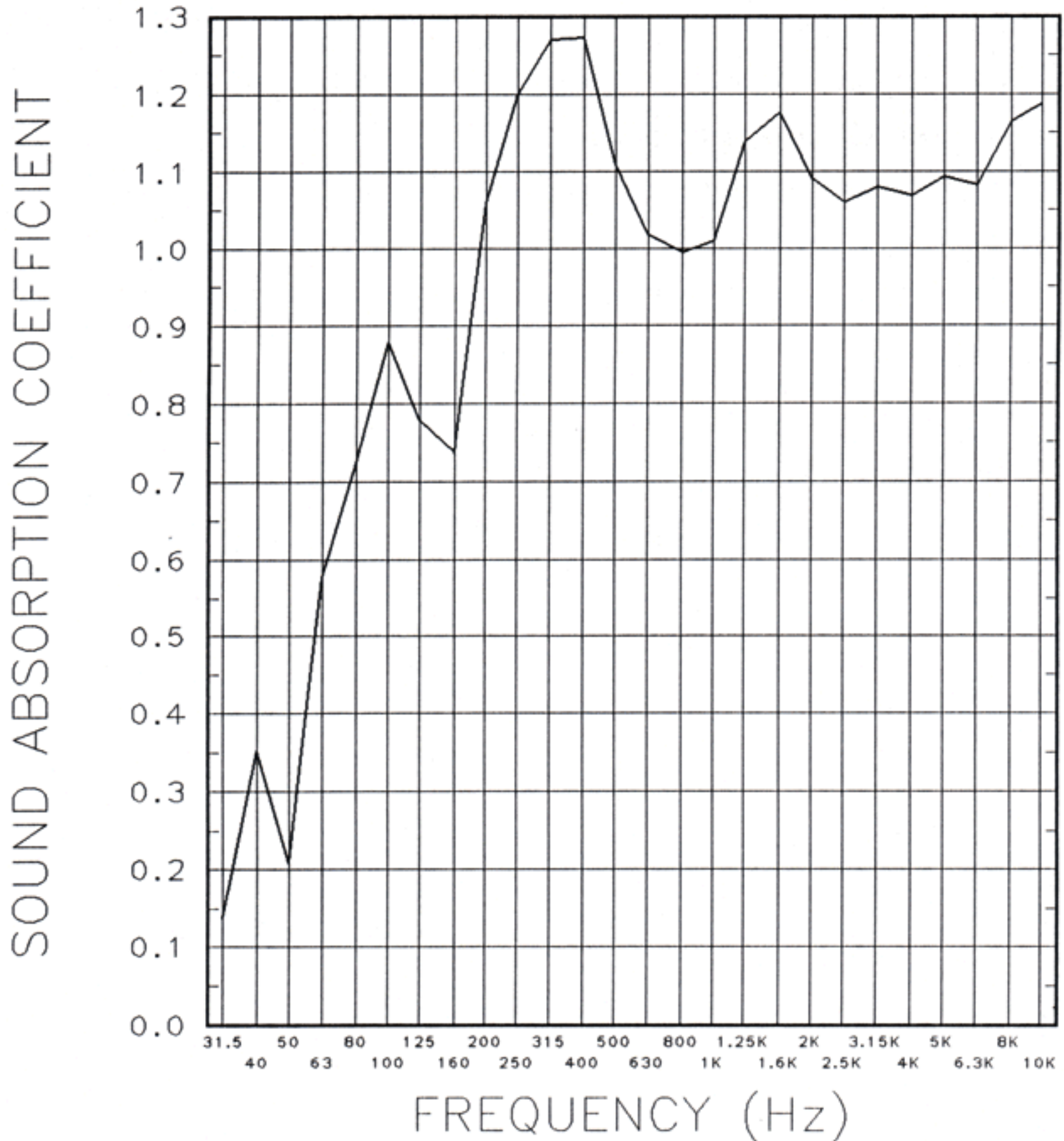
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SOUND ABSORPTION REPORT

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