



SOUND ABSORPTION TEST REPORT NO. AB15-142

Unfinished 3/4" thick Plyboo Linear Sound Panel 11 Bamboo Acoustical Panel on 1" Duct Liner (Type "A" mounting)

CLIENT: Smith & Fong Company
475 Sixth Street
San Francisco, CA 94103

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8 December 2015

TEST DATE: 9 September 2015

INTRODUCTION

The methods and procedures used for this test conform to the provisions and requirements of ASTM Procedure C 423-09a, Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method. Copies of the test standard are available at www.astm.org. The test chamber volume is 275 cubic meters. Western Electro-Acoustic Laboratory is accredited by the United States Department of Commerce, National Institute of Standards and Technology under the National Voluntary Accreditation Program (NVLAP) Lab Code 100256-0 for this test procedure. This test report relates only to the item(s) tested. This report must not be used to claim product certification, approval, or endorsement by WEAL, NVLAP, NIST or any agency of the federal government.

DESCRIPTION OF TEST SPECIMEN

The test specimen consisted of two bamboo slotted and perforated acoustical panels on fiberglass duct liner board. The duct liner was 25 mm (1 inch) thick, 24 kg/m³ (1.5 lbs/ft³) density. The panels were each 2.43 m (95.75 inches) by 1.21 m (47.75 inches) by 19 mm (3/4 inch) thick. The duct liner was placed directly on the chamber floor with the scrim side down. The panels were placed side by side on the duct liner and the edges of the specimen were covered with angle aluminum around the entire perimeter of the test specimen. The angle aluminum was taped to the chamber floor around the entire perimeter. The net dimensions of the assembly were 2.43 m (95.75 inches) by 2.43 m (95.5 inches) by 44.4 mm (1-3/4 inches) thick. The overall weight of the specimen was 54.4 kg (120 lbs.).

The specimen achieved an NRC of .70 and an SAA of .69. Additional test results are presented on the following page as well as the ASTM estimate of reproducibility, R, and repeatability, r, of the sound absorption coefficients of a specimen in a Type A mounting.

Approved:

Respectfully submitted,
Western Electro-Acoustic Laboratory

[Signature of Stephen A. Martin]

Stephen A. Martin, Ph.D., P.E.
Laboratory Director

[Signature of Raul Martinez]

Raul Martinez
Acoustical Test Technician

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Mounting per ASTM E795: Type A
Area Tested: 64.0 sq. ft. (5.95 sq.m)
Temperature: 79.3° F
Humidity: 41.2%
Pressure: 28.61 in. of Hg

TEST RESULTS

1/3 Octave Band Absorption Data

Frequency in Hz	Absorption in Sabins	Absorption Coefficients	Reproducibility R	Repeatability r
100	7.0	0.11	0.27	0.15
125	3.1	0.05	0.22	0.11
160	10.2	0.16	0.23	0.11
200	15.4	0.24	0.17	0.09
250	25.0	0.39	0.15	0.07
315	34.6	0.54	0.22	0.09
400	44.6	0.70	0.16	0.14
500	51.3	0.80	0.14	0.09
630	65.3	1.02	0.14	0.06
800	70.0	1.09	0.14	0.07
1000	65.5	1.02	0.12	0.06
1250	53.7	0.84	0.13	0.05
1600	44.0	0.69	0.14	0.05
2000	33.5	0.52	0.13	0.05
2500	28.3	0.44	0.14	0.06
3150	25.4	0.40	0.15	0.08
4000	24.1	0.38	0.16	0.11
5000	29.5	0.46	0.21	0.15

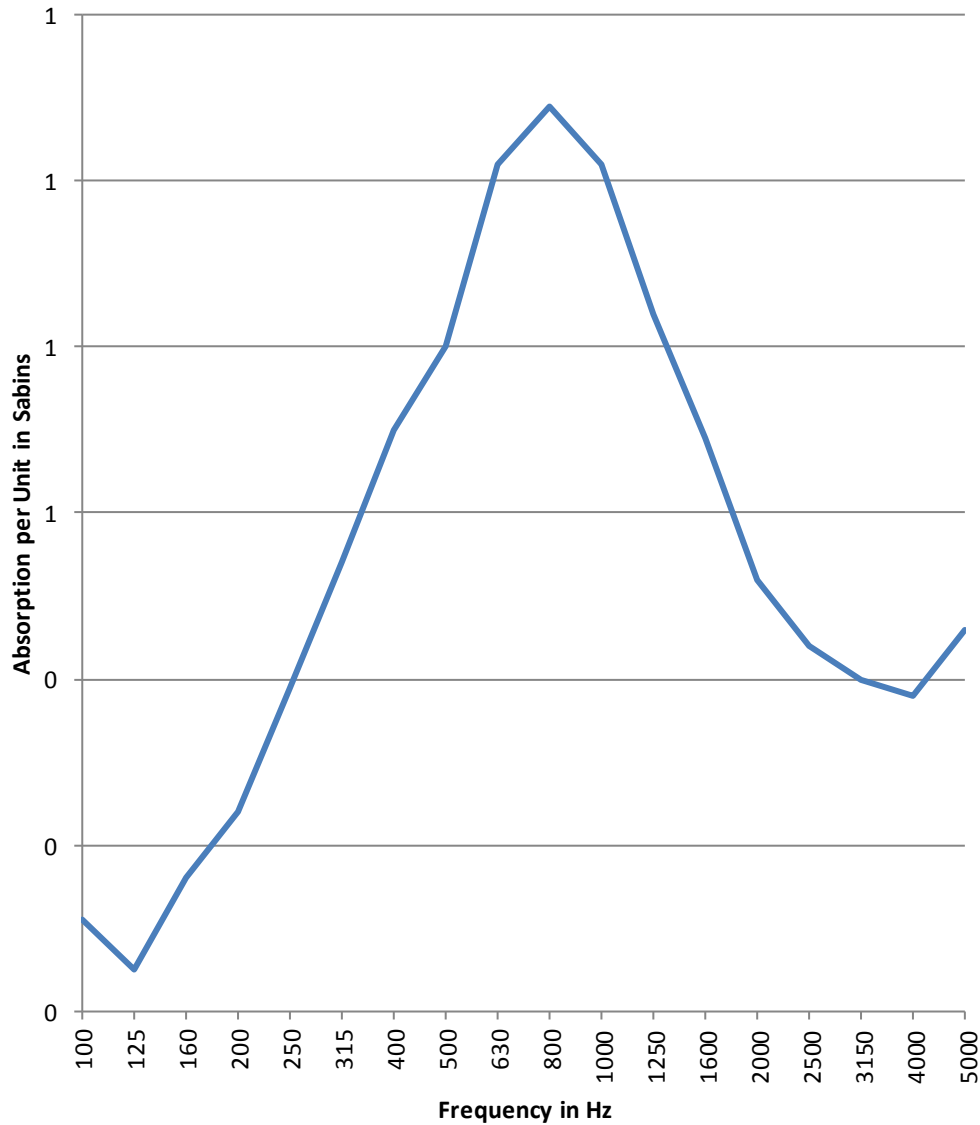
NRC 0.70

SAA 0.69

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Number of Units: 64
Temperature: 79.3° F
Relative Humidity: 41.2%
Atm. Pressure: 28.61 in. of Hg

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