WESTERN ELECTRO - ACOUSTIC LABORATORY
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TESTING • CALIBRATION • RESEARCH

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SOUND ABSORPTION TEST REPORT NO. AB11-152

Linear Series SKU 2116-2 Panelized Linear Wood on 1-1/2" fiberglass duct liner
("E-400" mounting)

CLIENT: **9Wood**
999 South A Street
Springfield, OR 97477

13 June 2011

TEST DATE: 6 June 2011

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 was a 9Wood White Maple Panelized Linear Wood assembly. The specimen consisted of 9 panels, each of which was approximately 2.44 m (96 inches) by 305 mm (12 inches) by 32 mm (1-1/4 inches) thick assembled over 38.1 mm (1.5 inches) of 32 kg/m^3 (2 lb/ft^3) fiberglass duct liner. The panels consisted of 133 mm (5-1/4 inch) by 19 mm (3/4 inch) slats with 19 mm (3/4 inch) spaces between them. The slats and spaces were maintained with 13 mm (1/2 inch) by 32 mm (1-1/4 inch) backer strips stapled to the back of the slats. The specimen was placed in an E-400 test jig, with the face of the specimen flush with the top of the jig, 400 mm (15-3/4 in.) above the test chamber floor. The test jig consisted of four wooden sides around the perimeter of the specimen. Closed cell foam gaskets were used to provide an air tight seal between the chamber floor and the bottom of the jig. The fiberglass duct liner was supported, scrim side down, on an angle aluminum grid and the planks were laid directly on the duct liner. According to the manufacturer the specimen was:

Linear Series SKU 2116-2 White Maple Panelized Linear Wood with fiberglass

The net dimensions of the assembly were 2.77 m (108 inches) by 2.44 m (96 inches) by 70 mm (2-3/4 inches) thick. The overall weight of the specimen was 97.5 kg (215 lbs.).

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 E-400 mounting.

Respectfully submitted,
Western Electro-Acoustic Laboratory

Gary E. Mange
Laboratory Manager

NVLAP LAB CODE 100256-0

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Mounting per ASTM E 795-00: Type E-400
Area tested: 72.07 ft^2 (6.69 m^2)
Temperature: 72.5° F
Humidity: 41.8%
Pressure: 28.68 in. of Hg

TEST RESULTS

1/3 Octave Band Absorption Data

Frequency in Hz	Absorption in Sabins	Absorption Coefficients	Reproducibility R	Repeatability r
100	67.3	0.93	0.49	0.23
125	66.4	0.92	0.33	0.16
160	74.3	1.03	0.27	0.11
200	58.8	0.82	0.14	0.08
250	48.1	0.67	0.17	0.07
315	45.4	0.63	0.12	0.07
400	37.2	0.52	0.08	0.05
500	40.6	0.56	0.09	0.06
630	40.0	0.56	0.08	0.06
800	33.4	0.46	0.09	0.04
1000	29.9	0.42	0.09	0.03
1250	25.8	0.36	0.11	0.05
1600	23.8	0.33	0.13	0.04
2000	21.4	0.30	0.11	0.05
2500	19.8	0.27	0.09	0.04
3150	19.7	0.27	0.10	0.04
4000	20.4	0.28	0.10	0.07
5000	23.0	0.32	0.13	0.09

NRC 0.50
SAA 0.49

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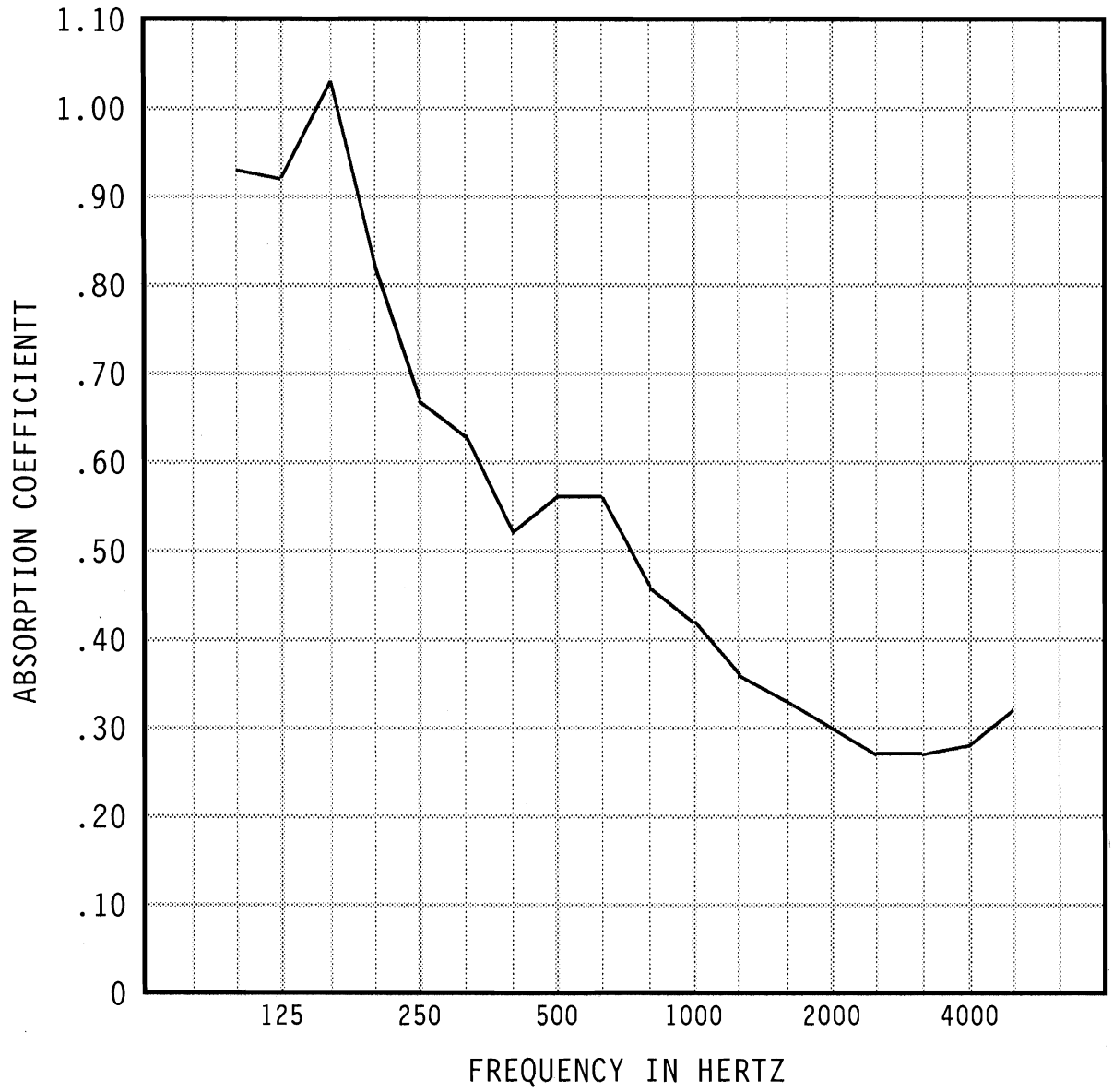

Specimen Area: 72 sq.ft.
Temperature: 72.5 deg. F
Relative Humidity: 41.8 %