WESTERN ELECTRO - ACOUSTIC LABORATORY
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T E S T I N G • C A L I B R A T I O N • R E S E A R C H

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SOUND ABSORPTION TEST REPORT NO. AB11-196 revision 2

Acoustic Planks SKU 3116-3 with 2.5 mm Kerf Openings, 16 mm spacing over 2" Encapsulated Fiberglass
(Type "E-1220" mounting)

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

14 December 2011

TEST DATE: 15 September 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 3100 Acoustic Plank. Twelve planks, approximately 19 mm (3/4 inch) thick by 190 mm (7.5 inches) wide by 2.44 m (96 inches) long were assembled over nominal 50 mm (2 inch) thick 24 kg/m^3 (1.5 lb/ft^3) CMA black polyethylene encapsulated (2 mil thick encapsulation) fiberglass pads. One additional plank, approximately 127 mm (5 inches) wide was used to complete the assembly. The planks were kerfed along the entire length of the plank (parallel to the grain) with 2.5 mm kerf openings on 16 mm centers. Each plank contained 25.4 mm (1 in.) by 159 mm (6.25 in.) oval acoustic dadoes filled with Johns Manville Microlite acoustic fiberglass pills on the backside of the plank. The specimen was placed in an E-1220 test jig, with the face of the specimen flush with the top of the jig, 1220 mm (48 inches) 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 bottom of the jig and the test chamber floor. The fiberglass duct liner was supported on an aluminum frame with the black scrim side down away from the planks. The planks were then placed directly on the fiberglass. According to the manufacturer the specimen was:

> Series 3100 SKU 3116-3 Acoustic Plank with a 1.5 lb/ft^3 CMA black polyethylene encapsulated (2 mil thick encapsulation) fiberglass pad backing

The net dimensions of the assembly were 2.44 m (96 inches) by 2.44 m (96 inches) by 70 mm (2-3/4 inch) thick. The overall weight of the specimen was 62.8 kg (138 lbs.).

Test results are presented on the following page.

Respectfully submitted,
Western Electro-Acoustic Laboratory

Gary E. Mange
Laboratory Manager

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Mounting per ASTM E 795-00: Type E-1220
Area tested: 64.0 ft^2 (5.95 m^2)
Temperature: 79.7° F
Humidity: 43.5%
Pressure: 28.48 in. of Hg

TEST RESULTS

1/3 Octave Band Absorption Data

Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	24.7	0.39
125	24.7	0.39
160	35.0	0.55
200	35.7	0.56
250	45.6	0.71
315	57.1	0.89
400	58.3	0.91
500	60.3	0.94
630	57.7	0.90
800	56.5	0.88
1000	51.4	0.80
1250	49.2	0.77
1600	44.9	0.70
2000	40.4	0.63
2500	37.7	0.59
3150	33.7	0.53
4000	27.0	0.42
5000	25.0	0.39

NRC 0.75
SAA 0.77

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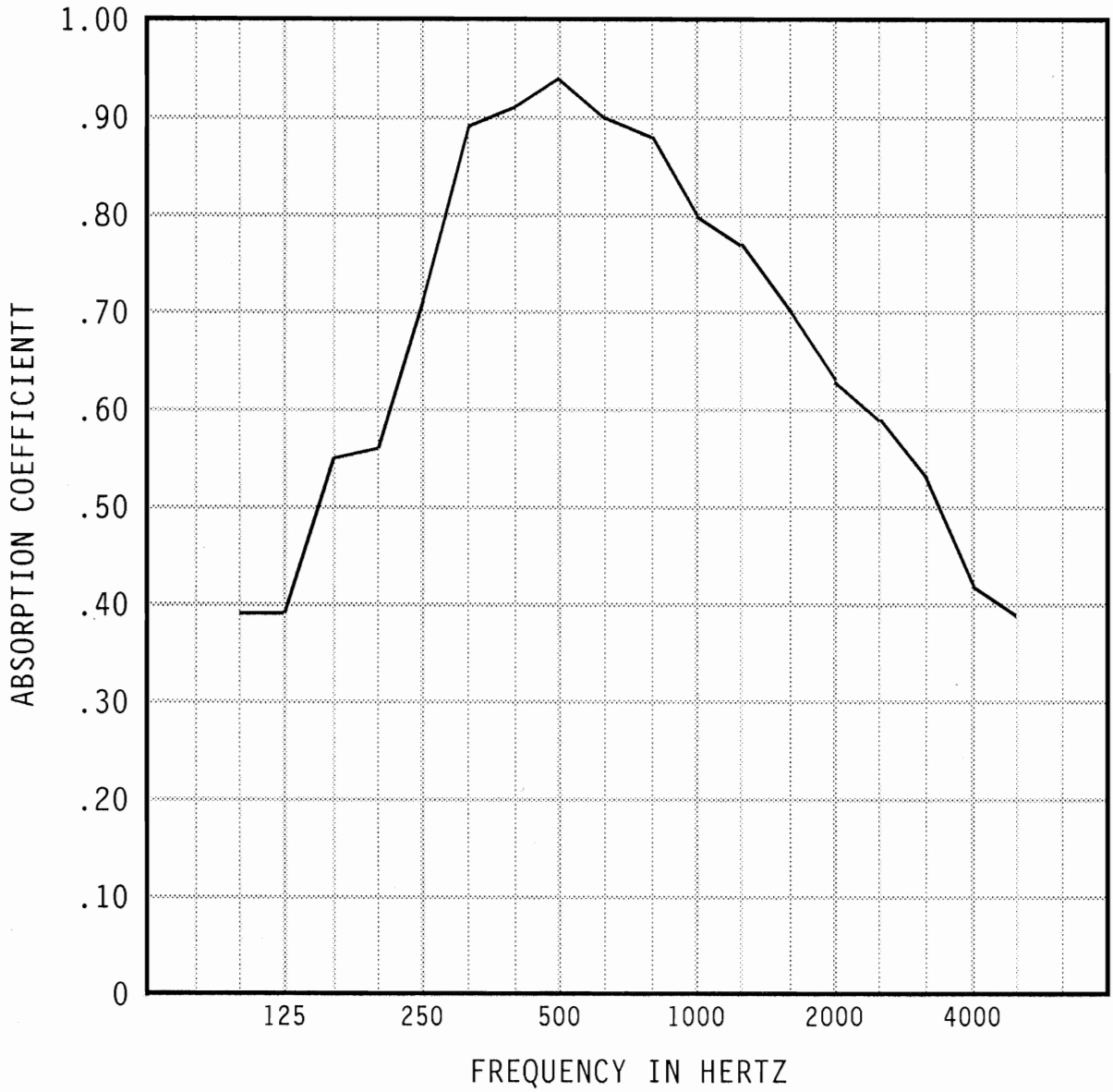

Specimen Area: 64 sq.ft.
Temperature: 79.7 deg. F
Relative Humidity: 43.5 %