



# WESTERN ELECTRO - ACOUSTIC LABORATORY

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## SOUND ABSORPTION TEST REPORT NO. AB11-155

Acoustic Planks SKU 3116-3 with 2.5 mm Kerf Openings, 16 mm spacing over 1" Fiberglass  
(Type "E-1220" mounting)

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

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22 June 2011

TEST DATE: 21 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](http://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 25.4 mm (1 inch) of 24 kg/m<sup>3</sup> (1.5 lb/ft<sup>3</sup>) Owens Corning SelectSound black acoustic fiberglass duct liner. 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<sup>3</sup> Owens Corning SelectSound fiberglass duct liner backing

The net dimensions of the assembly were 2.44 m (96 inches) by 2.44 m (96 inches) by 44 mm (1-3/4 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<sup>2</sup> (5.95 m<sup>2</sup>)

Temperature: 73.8° F

Humidity: 54.0%

Pressure: 28.46 in. of Hg

### TEST RESULTS

#### 1/3 Octave Band Absorption Data

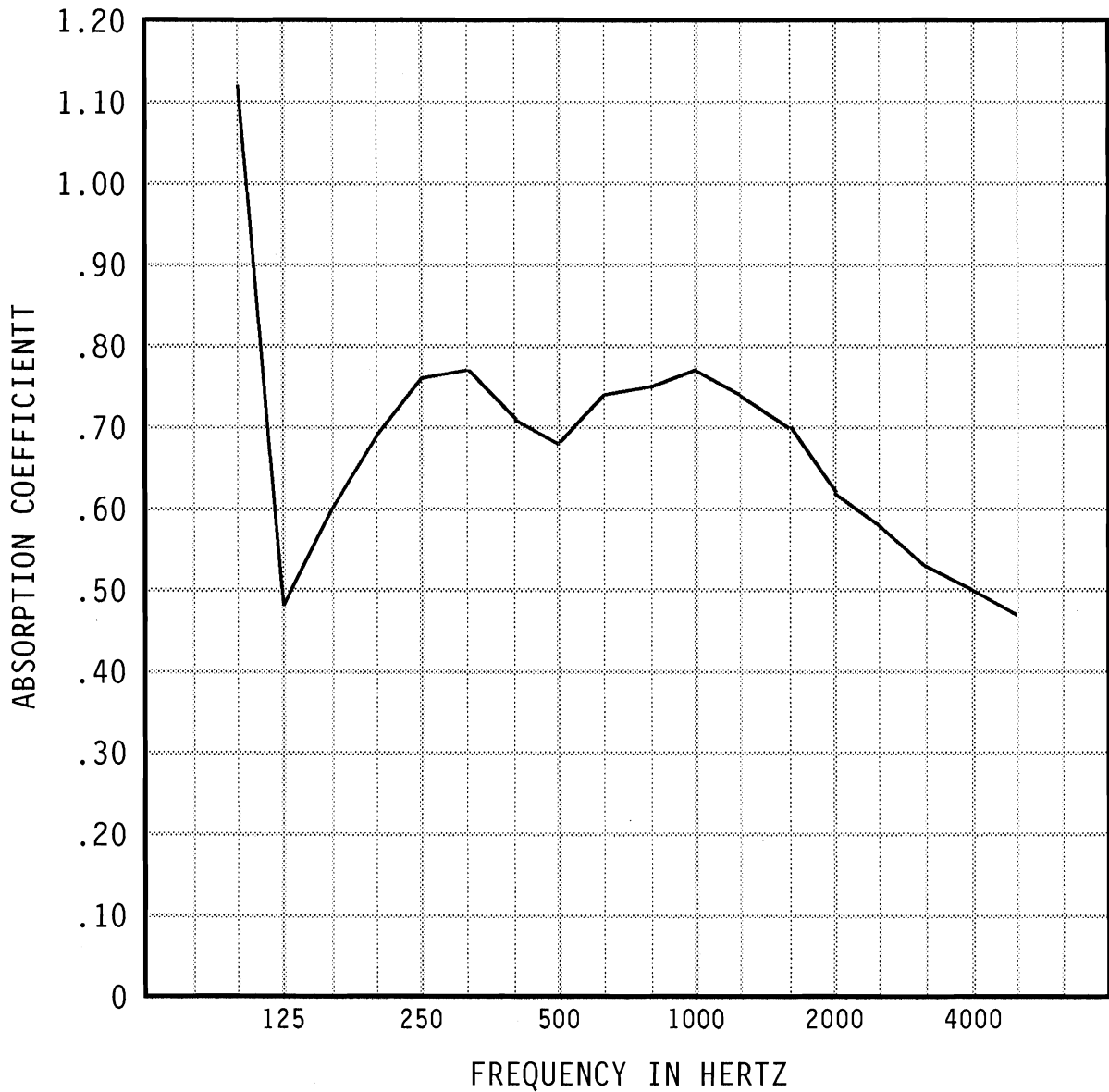
Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	71.8	1.12
125	30.7	0.48
160	38.3	0.60
200	44.4	0.69
250	48.5	0.76
315	49.0	0.77
400	45.6	0.71
500	43.7	0.68
630	47.4	0.74
800	47.7	0.75
1000	49.4	0.77
1250	47.6	0.74
1600	45.0	0.70
2000	39.9	0.62
2500	37.4	0.58
3150	33.7	0.53
4000	32.0	0.50
5000	30.4	0.47

NRC 0.70  
SAA 0.71

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Specimen Area: 64 sq.ft.  
Temperature: 73.8 deg. F  
Relative Humidity: 54.0 %

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