



# WESTERN ELECTRO - ACOUSTIC LABORATORY

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## SOUND ABSORPTION TEST REPORT NO. AB07-138 revision 2

Acoustic Planks SKU 3108-2 with 1.5 mm Kerf Openings, 8 mm spacing over 1.5" Fiberglass ("E-400" mounting)

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

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7 September 2010

TEST DATE: 23 March 2007

### INTRODUCTION

The methods and procedures used for this test conform to the provisions and requirements of ASTM Procedure C 423-08a, *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. Any advertising that utilizes this test report or test data must not imply product certification or endorsement by WEAL, NVLAP, NIST or the U.S. Government.

### DESCRIPTION OF TEST SPECIMEN

The test specimen was a 9Wood 3100 Acoustic Plank. Fourteen planks, approximately 19 mm (3/4 inch) thick by 200 mm (8 inches) wide by 2.44 m (8 feet) long were assembled over 38.1 mm (1.5 in.) of 32 kg/m<sup>3</sup> (2 lb/ft<sup>3</sup>) fiberglass duct liner. One additional plank, 51 mm (2 inches) wide was used to complete the assembly. The planks were kerfed along the entire length of the plank (parallel to the grain) with 1.5 mm kerf openings on 8 mm centers. Each plank contained 25.4 mm (1 in.) by 159 mm (6.25 in.) oval acoustic dadoes filled with fiberglass pills on the backside of the plank. 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 on an angle aluminum grid and the planks were placed on top of the duct liner. According to the manufacturer the specimen was:

Series 3100 SKU 3108-2 Acoustic Plank with a 2 lb/ft<sup>3</sup> fiberglass duct liner backing

The net dimensions of the assembly were 2.74 m (108 inches) by 2.44 m (96 inches) by 57.2 mm (2-1/4 inch) thick. The overall weight of the specimen was 70.3 kg (155 lbs.).

Test results are presented on the following page.

Respectfully submitted,  
Western Electro-Acoustic Laboratory

  
Gary E. Mange  
Laboratory Director

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Mounting per ASTM E 795-00: Type E-400

Area tested: 72.0 ft<sup>2</sup> (6.69 m<sup>2</sup>)

Temperature: 69.4° F

Humidity: 46%

## TEST RESULTS

### 1/3 Octave Band Absorption Data

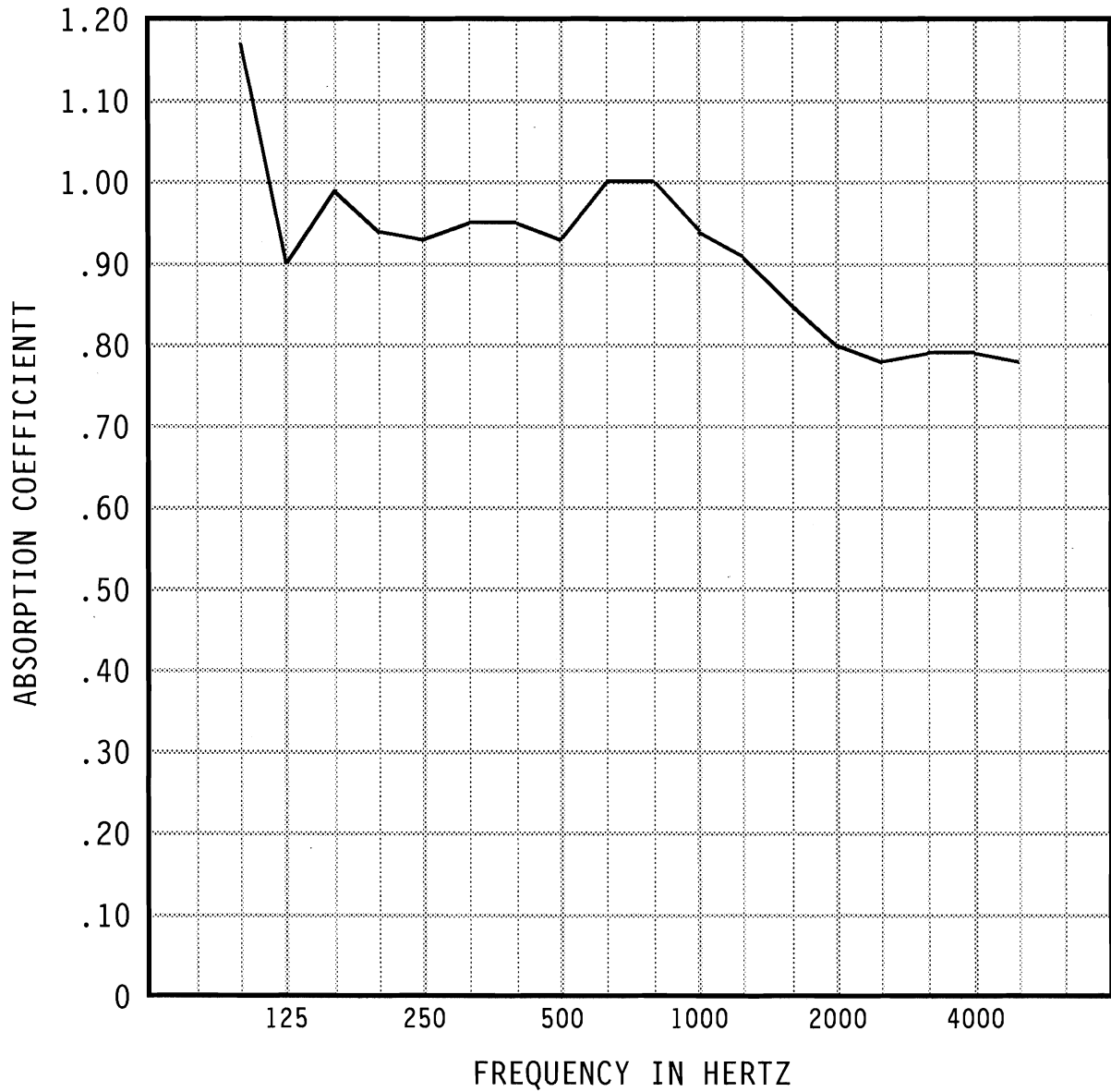
Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	84.0	1.17
125	64.6	0.90
160	71.5	0.99
200	67.7	0.94
250	66.9	0.93
315	68.3	0.95
400	68.6	0.95
500	66.8	0.93
630	72.1	1.00
800	71.7	1.00
1000	67.7	0.94
1250	65.9	0.91
1600	61.4	0.85
2000	57.8	0.80
2500	56.2	0.78
3150	56.7	0.79
4000	56.9	0.79
5000	56.5	0.78

**NRC 0.90**  
**SAA 0.92**

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Specimen Area: 72 sq.ft.  
Temperature: 69.4 deg. F  
Relative Humidity: 46 %

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