



# WESTERN ELECTRO - ACOUSTIC LABORATORY

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## SOUND ABSORPTION TEST REPORT NO. AB07-130

1000 Series SKU 1112-8 Cross Piece Wood Grilles with fiberglass duct liner  
("A" mounting)

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

Page 1 of 3  
15 March 2007

TEST DATE: 13 March 2007

### INTRODUCTION

The methods and procedures used for this test conform to the provisions and requirements of ASTM Procedure C 423-02a, *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 Cross Piece Wood Grille assembly. The specimen consisted of 9 grilles, each of which was approximately 96 inches (2.44 m) by 12 inches (305 mm) by 3 inches (76.2 mm) thick. The grilles consisted of 1-3/8 inch (34.9 mm) by 5/8 inch (15.9 mm) slats on edge with 7/8 inch (22.2 mm) spaces between them. The slats and spaces were maintained with 1/2 inch (12.7 mm) by 1-1/4 inch (31.8 mm) backer strips screwed to the back of the slats. Attached to the back of the grilles was 1-1/2 inch (38.1 mm) 2 lbs./ft<sup>3</sup> (32.0 kg/m<sup>3</sup>) fiberglass duct liner. The grilles were laid side by side directly on the test chamber floor and the edges were covered with angle aluminum around the entire perimeter of the specimen. The angle aluminum was taped to the chamber floor around the entire perimeter. According to the manufacturer the specimen was:

1000 Series SKU 1112-8 Cross Piece Wood Grilles with fiberglass

The net dimensions of the assembly were 109 inches (2.77 m) by 96-1/8 inches (2.44 m) by 3 inches (76.2 mm) thick. The overall weight of the specimen was 123 lbs. (55.8 kg).

Test results are presented on the following page.

Respectfully submitted,  
Western Electro-Acoustic Laboratory

Gary E. Mange  
Laboratory Director

# SOUND ABSORPTION TEST REPORT NO. AB07-130

Page 2 of 3  
15 March 2007

TEST DATE: 13 March 2007

Mounting per ASTM E 795-00: Type A

Area tested: 72.76 ft<sup>2</sup> (6.76 m<sup>2</sup>)

Temperature: 69.0° F

Humidity: 43.5%

## TEST RESULTS

### 1/3 Octave Band Absorption Data

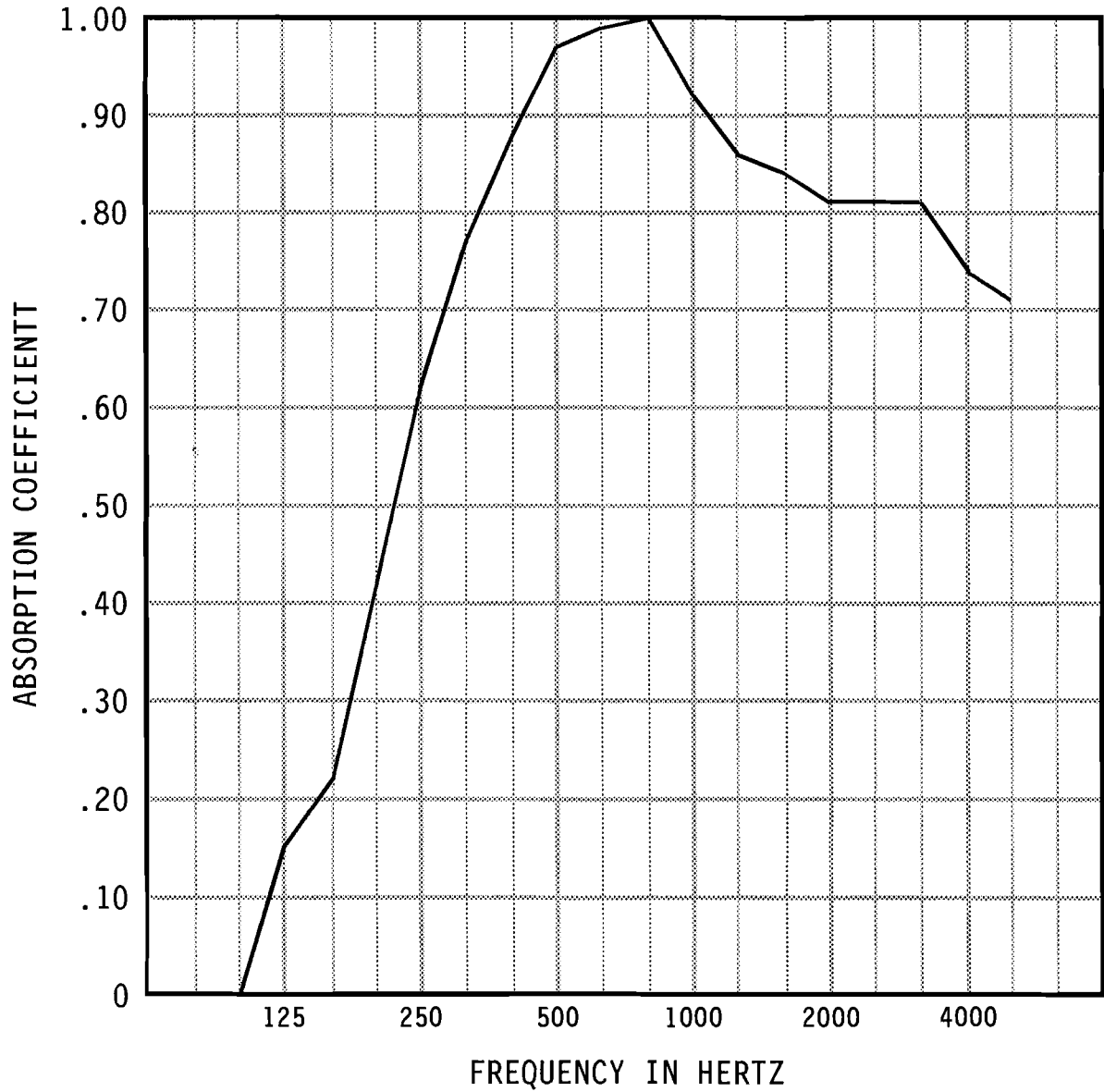
Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	0.0	0.00
125	10.8	0.15
160	16.2	0.22
200	30.6	0.42
250	45.2	0.62
315	56.3	0.77
400	64.1	0.88
500	70.6	0.97
630	71.8	0.99
800	72.6	1.00
1000	67.1	0.92
1250	62.6	0.86
1600	61.4	0.84
2000	59.1	0.81
2500	58.8	0.81
3150	59.3	0.81
4000	53.8	0.74
5000	51.9	0.71

**NRC 0.85**  
**SAA 0.82**

# SOUND ABSORPTION TEST REPORT No. AB07-130

TEST DATE: 13 March 2007

Page 3 of 3  
15 March 2007



Specimen Area: 72.76 sq.ft.  
Temperature: 69.0 deg. F  
Relative Humidity: 43.5 %

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