



# WESTERN ELECTRO - ACOUSTIC LABORATORY

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## SOUND ABSORPTION TEST REPORT NO. AB11-212

Pacific Albus EcoGrille (8 member) on 1.5" fiberglass duct liner  
("A" mounting)

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

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27 October 2011

TEST DATE: 26 October 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

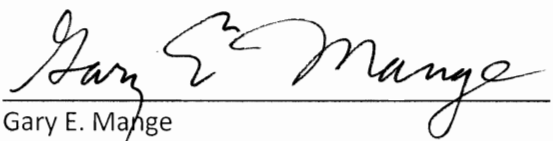
The test specimen was a 9Wood 8 member Pacific Albus EcoGrille assembly. The specimen consisted of nine grilles, each of which was approximately 2.44 m (96 inches) by 305 mm (12 inches) by 41.3 mm (1-5/8 inches) thick. Each grille consisted of eight 28.6 mm (1-1/8 inch) by 15.9 mm (5/8 inch) slats on edge with 22.2 mm (7/8 inch) spaces between them. The slats and spaces were maintained with 12.7 mm (1/2 inch) by 31.8 mm (1-1/4 inch) backer strips stapled to the back of the slats. The grilles were backed with nominal 38.1 mm (1-1/2 inch) thick 24.0 kg/m<sup>3</sup> (1.5 lbs./ft<sup>3</sup>) density fiberglass duct liner. The specimen was placed directly on the test chamber floor. The duct liner was placed on the floor with the scrim side down. The grilles sat on the duct liner and the edges of the specimen were covered with angle aluminum around the entire perimeter of the test specimen. The angle aluminum was taped to the chamber floor around the entire perimeter. According to the manufacturer the specimen was:

Pacific Albus EcoGrille (8 member) on 1.5" fiberglass duct liner

The net dimensions of the assembly were 2.74 m (108 inches) by 2.44 m (96 inches) by 79.4 mm (3-1/8 inches) thick. The overall weight of the specimen was 41.0 kg (90.5 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 A mounting.

Respectfully submitted,  
Western Electro-Acoustic Laboratory

  
Gary E. Mange  
Laboratory Manager

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Mounting per ASTM E 795-00: Type A

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

Temperature: 76.8° F

Humidity: 43.2%

Pressure: 28.60 in. of Hg

### TEST RESULTS

#### 1/3 Octave Band Absorption Data

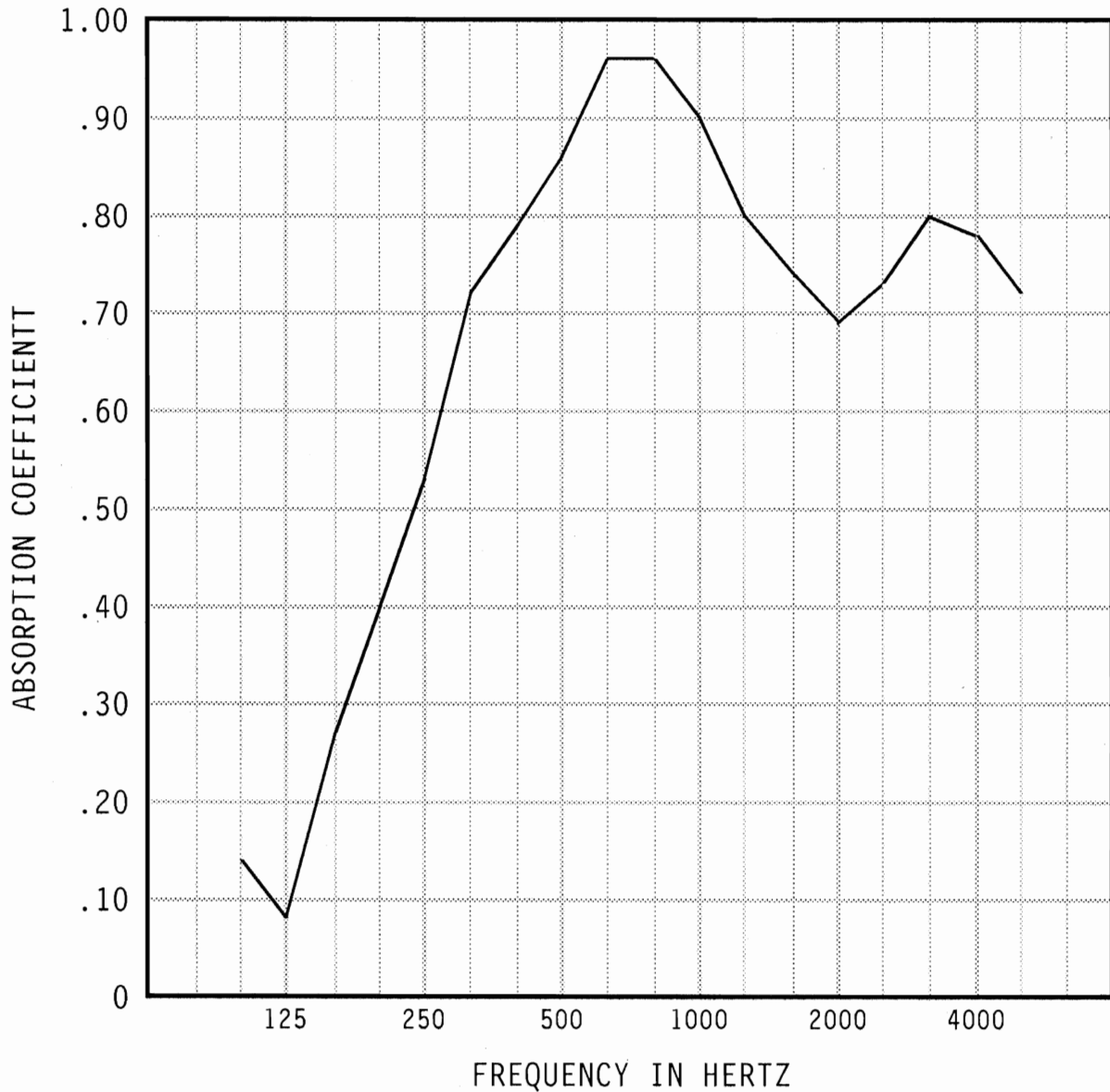
Frequency in Hz	Absorption in Sabins	Absorption Coefficients	Reproducibility R	Repeatability r
100	10.0	0.14	0.27	0.15
125	5.7	0.08	0.22	0.11
160	19.7	0.27	0.23	0.11
200	29.1	0.40	0.17	0.09
250	38.2	0.53	0.15	0.07
315	52.0	0.72	0.22	0.09
400	56.9	0.79	0.16	0.14
500	62.1	0.86	0.14	0.09
630	68.9	0.96	0.14	0.06
800	68.8	0.96	0.14	0.07
1000	65.0	0.90	0.12	0.06
1250	57.7	0.80	0.13	0.05
1600	53.2	0.74	0.14	0.05
2000	49.9	0.69	0.13	0.05
2500	52.7	0.73	0.14	0.06
3150	57.9	0.80	0.15	0.08
4000	56.5	0.78	0.16	0.11
5000	52.1	0.72	0.21	0.15

NRC 0.75  
SAA 0.76

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Specimen Area: 72 sq.ft.  
Temperature: 76.8 deg. F  
Relative Humidity: 43.2 %

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