

WESTERN ELECTRO - ACOUSTIC LABORATORY

A division of Veneklasen Associates, Inc.

| TESTING • CALIBRATION • RESEAU | ₹СН |
|--------------------------------|-----|
|--------------------------------|-----|

25132 Rye Canyon Loop Santa Clarita, California 91355 Tel: (661) 775-3741 Fax: (661) 775-3742 www.weal.com

SOUND ABSORPTION TEST REPORT NO. AB07-134

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

("E-400" 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 <u>www.astm.org</u>. 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./ft³ (32.0 kg/m³) fiberglass duct liner. The specimen was placed in an E-400 mounting jig consisting of four wooden sides around the perimeter of the specimen. The grilles sat on an angle aluminum grid such that the top of the grilles were flush with the top of the jig, 400 mm (15-3/4 inches) above the test chamber floor. Closed cell foam gaskets are used to provide an air tight seal between the chamber floor and the bottom of the jig. 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 108 inches (2.74 m) by 96 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

Jan E Mange

Gary E. Mange Laboratory Director

Report must be distributed in its entirety except with written authorization from Western Electro-Acoustic Laboratory



SOUND ABSORPTION TEST REPORT NO. AB07-134

TEST DATE: 13 March 2007

Page 2 of 3 15 March 2007

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

Area tested: $72.0 \text{ ft}^2 (6.69 \text{ m}^2)$

Temperature: 69.3° F

Humidity: 42%

TEST RESULTS

| Frequency in Hz | Absorption in Sabins | Absorption Coefficients |
|--------------------|-------------------------|----------------------------|
| 100 | 68.9 | 0.96 |
| 125 | 66.7 | 0.93 |
| 160 | 76.7 | 1.07 |
| 200 | 71.1 | 0.99 |
| 250 | 70.9 | 0.98 |
| 315 | 74.3 | 1.03 |
| 400 | 70.5 | 0.98 |
| 500 | 64.6 | 0.90 |
| 630 | 70.9 | 0.98 |
| 800 | 77.9 | 1.08 |
| 1000 | 72.1 | 1.00 |
| 1250 | 74.0 | 1.03 |
| 1600 | 73.8 | 1.02 |
| 2000 | 71.4 | 0.99 |
| 2500 | 68.9 | 0.96 |
| 3150 | 69.9 | 0.97 |
| 4000 | 71.7 | 1.00 |
| 5000 | 68.5 | 0.95 |
| | | NRC 0 95 |

1/3 Octave Band Absorption Data

SAA 0.99

Report must be distributed in its entirety except with written authorization from West ern Electro-Acoustic Laboratory



TEST DATE: 13 March 2007

Page 3 of 3 15 March 2007



Specimen Area: 72 sq.ft. Temperature: 69.3 deg. F Relative Humidity: 42 %

Report must be distributed in its entirety except with written authorization from Western Electro-Acoustic Labratory

