



# WESTERN ELECTRO - ACOUSTIC LABORATORY

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TESTING • CALIBRATION • RESEARCH

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## SOUND ABSORPTION TEST REPORT NO. AB06-115

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

Page 1 of 3  
17 April 2006

TEST DATE: 27 March 2006  
TEST SPECIMEN: Perforated Wood Tiles

### 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 Perforated Wood Tile assembly. The specimen consisted of 16 tiles which were each approximately 24 inches (610 mm) by 24 inches (610 mm) by 3/4 inch (19.1 mm) thick. The perforations were 10 mm (3/8 inch) diameter holes on 32 mm (1-1/4 inch) centers. SoundTEX was adhered to the back of the tiles. The specimen was placed in an E-400 mounting jig consisting of four wooden sides around the perimeter of the specimen. The tiles sat on an angle aluminum grid such that the top of the tiles 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. The joints and perimeter of the specimen were sealed with tape. According to the manufacturer the specimen was:

5000 Series SKU 5132-10 Perforated Wood Tiles with SoundTEX.

The net dimensions of the panel assembly were 96 inches (2.44 m) by 96 inches (2.44 m) by 3/4 inches (19.1 mm) thick. The percent open area was 7.7%. The overall weight of the specimen was 164 lbs. (74.4 kg).

Test results are presented on the following page.

Respectfully submitted,  
Western Electro-Acoustic Laboratory

  
Gary E. Mange  
Laboratory Manager

# SOUND ABSORPTION TEST REPORT NO. AB06-115

Page 2 of 3  
17 April 2006

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

Area tested: 64.0 ft<sup>2</sup> (5.95 m<sup>2</sup>)

Temperature: 66.4° F

Humidity: 45%

## TEST RESULTS

### 1/3 Octave Band Absorption Data

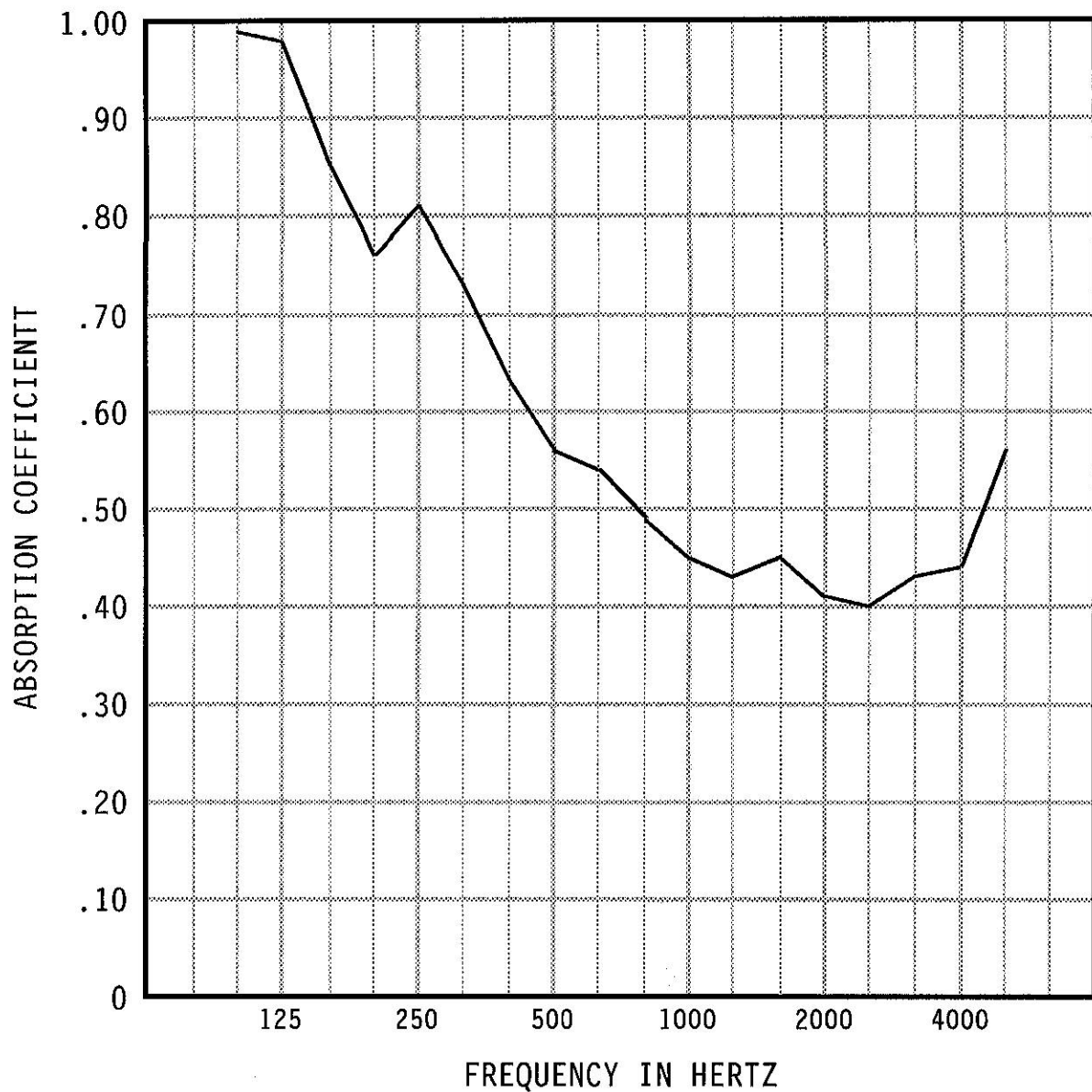
Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	63.1	0.99
125	62.5	0.98
160	54.3	0.85
200	48.5	0.76
250	52.0	0.81
315	46.8	0.73
400	40.2	0.63
500	35.6	0.56
630	34.6	0.54
800	31.3	0.49
1000	28.8	0.45
1250	27.8	0.43
1600	28.6	0.45
2000	26.5	0.41
2500	25.9	0.40
3150	27.3	0.43
4000	28.1	0.44
5000	35.6	0.56

**NRC 0.55**  
**SAA 0.55**

# SOUND ABSORPTION TEST REPORT No. AB06-115

TEST DATE: 27 March 2006

Page 3 of 3  
17 April 2006



Specimen Area: 64 sq.ft.  
Temperature: 66.4 deg. F  
Relative Humidity: 45 %

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