



# WESTERN ELECTRO - ACOUSTIC LABORATORY

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## SOUND ABSORPTION TEST REPORT NO. AB07-136

5000 Series SKU 5132-8 Perforated Wood Tiles with SoundTex  
("E-400" mounting)

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

Page 1 of 3  
15 March 2007

TEST DATE: 14 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 Perforated Wood Tile assembly. The specimen consisted of 20 tiles. 16 of the tiles were approximately 24 inches (610 mm) by 24 inches (610 mm) by 3/4 inch (19.1 mm) thick and 4 of the tiles were approximately 24 inches (610 mm) by 12 inches (305 mm) by 3/4 inch (19.1 mm) thick. The perforations were 8 mm (5/16 inch) diameter holes on 32 mm (1-1/4 inch) centers. Adhered to the back of the tiles was SoundTex. 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 5132-8 Perforated Wood Tiles with SoundTex

The net dimensions of the tile assembly were 108 inches (2.74 m) by 96 inches (2.44 m) by 3/4 inches (19.1 mm) thick. The percent open area was calculated to be 4.9%. The overall weight of the specimen was 189 lbs. (85.7 kg).

Test results are presented on the following page.

Respectfully submitted,  
Western Electro-Acoustic Laboratory

Gary E. Marge  
Laboratory Director

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# SOUND ABSORPTION TEST REPORT NO. AB07-136

Page 2 of 3  
15 March 2007

TEST DATE: 14 March 2007

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

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

Temperature: 69.1° F

Humidity: 49%

## TEST RESULTS

### 1/3 Octave Band Absorption Data

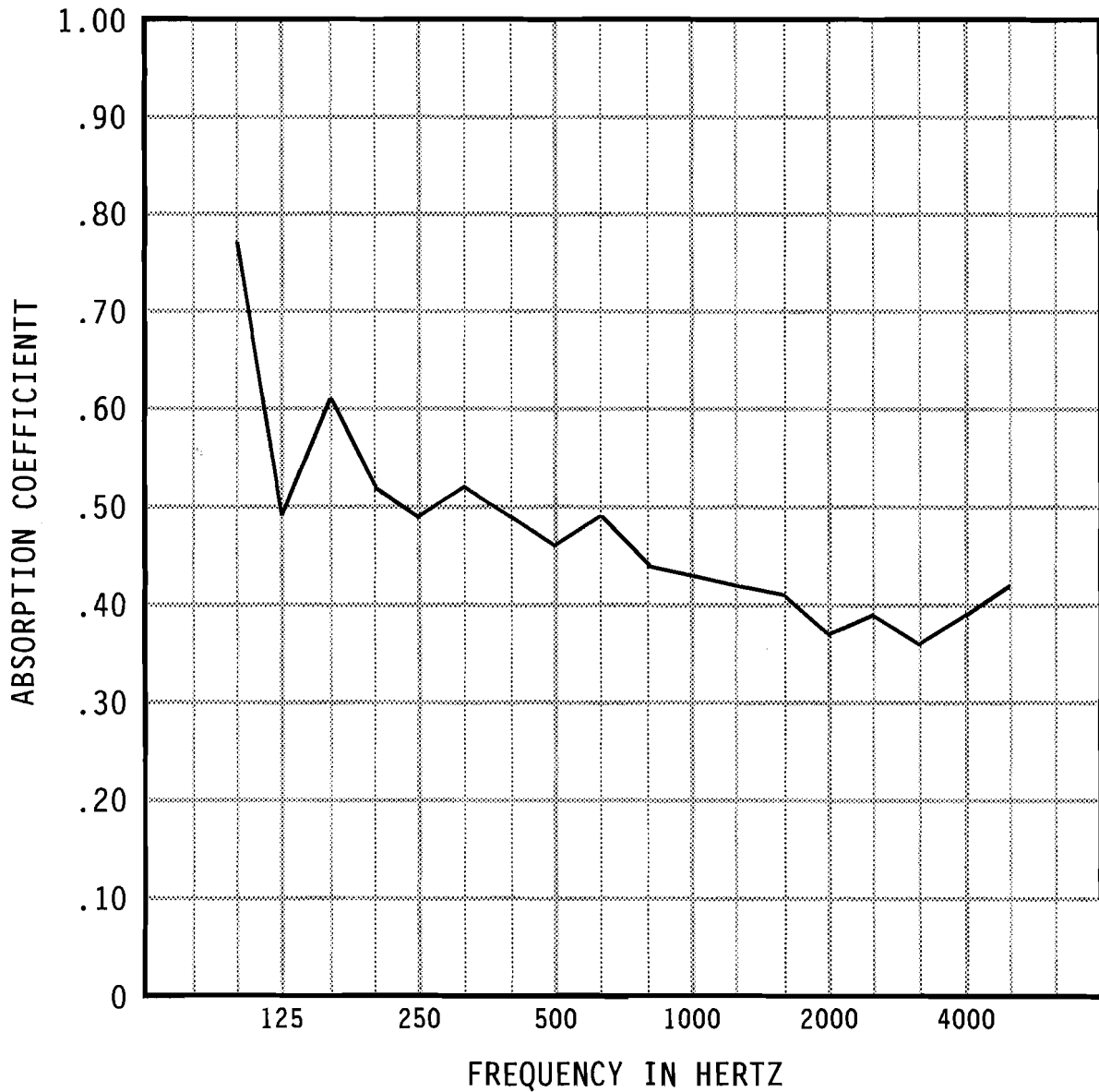
Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	55.8	0.77
125	34.9	0.49
160	44.1	0.61
200	37.1	0.52
250	35.5	0.49
315	37.4	0.52
400	35.5	0.49
500	33.2	0.46
630	35.2	0.49
800	31.7	0.44
1000	31.0	0.43
1250	30.0	0.42
1600	29.3	0.41
2000	27.0	0.37
2500	27.8	0.39
3150	25.8	0.36
4000	28.0	0.39
5000	30.0	0.42

**NRC 0.45**  
**SAA 0.45**

# SOUND ABSORPTION TEST REPORT No. AB07-136

TEST DATE: 14 March 2007

Page 3 of 3  
15 March 2007



Specimen Area: 72 sq.ft.  
Temperature: 69.1 deg. F  
Relative Humidity: 49 %

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