

### WESTERN ELECTRO - ACOUSTIC LABORATORY

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TESTING • CALIBRATION • RESEARCH

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## SOUND ABSORPTION TEST REPORT NO. AB06-116

CLIENT:

9Wood

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999 South A Street

Springfield, OR 97477

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. 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 6 mm (1/4 inch) diameter holes on 16 mm (5/8 inch) staggered 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 5216-6 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 2-1/4 inches (57.2 mm) thick. The percent open area was 22.1%. The overall weight of the specimen was 141 lbs. (64.0 kg).

Test results are presented on the following page.

Respectfully submitted,

Western Electro-Acoustic Laboratory

Gary E. Mange

Laboratory Manager

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

Area tested:  $64.0 \text{ ft}^2 (5.95 \text{ m}^2)$ 

Temperature: 66.4° F Humidity: 45%

#### TEST RESULTS

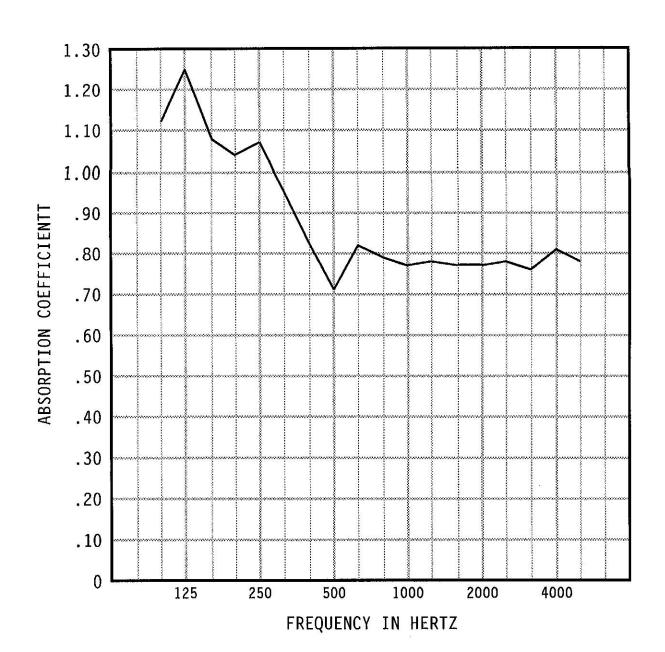
## 1/3 Octave Band Absorption Data

Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	71.9	1.12
125	79.8	1.25
160	69.1	1.08
200	66.8	1.04
250	68.4	1.07
315	60.7	0.95
400	52.7	0.82
500	45.4	0.71
630	52.7	0.82
800	50.9	0.79
1000	49.0	0.77
1250	50.1	0.78
1600	49.4	0.77
2000	49.2	0.77
2500	49.6	0.78
3150	48.4	0.76
4000	52.1	0.81
5000	49.7	0.78

NRC 0.85 SAA 0.84

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