

#### WESTERN ELECTRO - ACOUSTIC LABORATORY

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TESTING • CALIBRATION • RESEARCH

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## SOUND ABSORPTION TEST REPORT NO. AB06-119

CLIENT:

9Wood

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999 South A Street

Springfield, OR 97477

17 April 2006

TEST DATE:

28 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 10 mm (3/8 inch) diameter holes on 32 mm (1-1/4 inch) centers. Attached to the back of the tiles was 1-1/2 inch (38.1 mm) 2 lbs./ft³ (32.0 kg/m³) fiberglass duct liner board. The tiles were laid side by side directly on the test chamber floor and the edges were covered with angle aluminum around the entire perimeter of the specimen. The angle aluminum was taped to the chamber floor around the entire perimeter. According to the manufacturer the specimen was:

5000 Series SKU 5132-10 Perforated Wood Tiles with preattached acoustic ductliner.

The net dimensions of the panel assembly were 95.7 inches (2.43 m) by 95.6 inches (2.43 m) by 2-1/4 inches (57.2 mm) thick. The percent open area was 7.7%. The overall weight of the specimen was 178 lbs. (80.7 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 A Area tested: 63.57 ft<sup>2</sup> (5.91 m<sup>2</sup>)

Temperature: 66.3° F

Humidity: 48%

#### TEST RESULTS

## 1/3 Octave Band Absorption Data

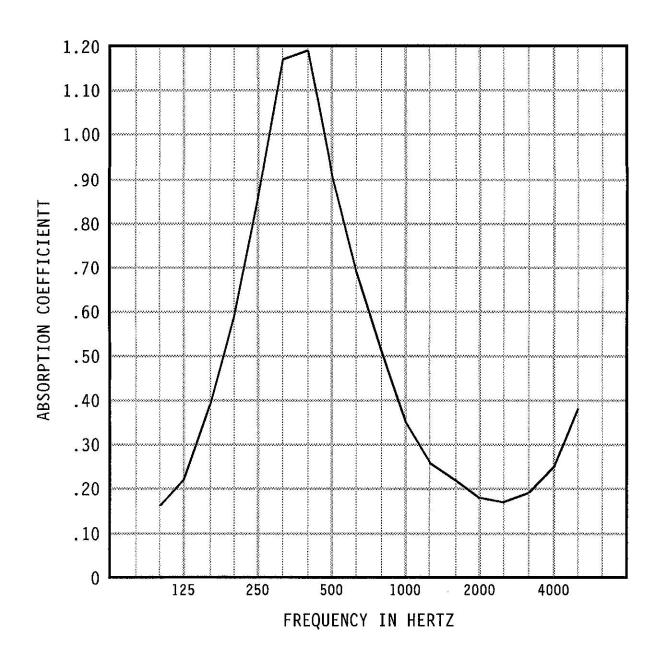
Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	9.9	0.16
125	14.0	0.22
160	24.6	0.39
200	37.5	0.59
250	54.5	0.86
315	74.5	1.17
400	75.3	1.19
500	58.0	0.91
630	44.0	0.69
800	32.5	0.51
1000	22.5	0.35
1250	16.5	0.26
1600	13.9	0.22
2000	11.6	0.18
2500	11.1	0.17
3150	12.1	0.19
4000	15.9	0.25
5000	24.1	0.38

NRC 0.60 SAA 0.59

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Specimen Area: 63.57 sq.ft. Temperature: 66.3 deg. F Relative Humidity: 48 %