

### **WESTERN ELECTRO - ACOUSTIC LABORATORY**

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TESTING • CALIBRATION • RESEARCH

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### SOUND ABSORPTION TEST REPORT NO. AB06-120

CLIENT:

9Wood

999 South A Street

Springfield, OR 97477

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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 6 mm (1/4 inch) diameter holes on 16 mm (5/8 inch) staggered 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 5216-6 Perforated Wood Tiles with preattached acoustic ductliner.

The net dimensions of the panel assembly were 95.6 inches (2.43 m) by 95.7 inches (2.43 m) by 2-1/4 inches (57.2 mm) thick. The percent open area was 22.1%. The overall weight of the specimen was 153 lbs. (69.4 kg).

Test results are presented on the following page.

Respectfully submitted,

Western Electro-Acoustic Laboratory

mange

Gary E. Mange

Laboratory Manager



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Mounting per ASTM E 795-00: Type A Area tested:  $63.58 \text{ ft}^2 (5.91 \text{ m}^2)$ 

Temperature: 66.4° F

Humidity: 49%

### TEST RESULTS

### 1/3 Octave Band Absorption Data

F=====================================		
Frequency in Hz	Absorption in Sabins	Absorption Coefficients
100	4.7	0.07
125	11.2	0.18
160	16.8	0.26
200	28.2	0.44
250	41.0	0.65
315	54.0	0.85
400	64.2	1.01
500	71.1	1.12
630	68.4	1.08
800	62.5	0.98
1000	54.0	0.85
1250	47.1	0.74
1600	38.0	0.60
2000	34.3	0.54
2500	34.2	0.54
3150	36.8	0.58
4000	43.1	0.68
5000	47.2	0.74

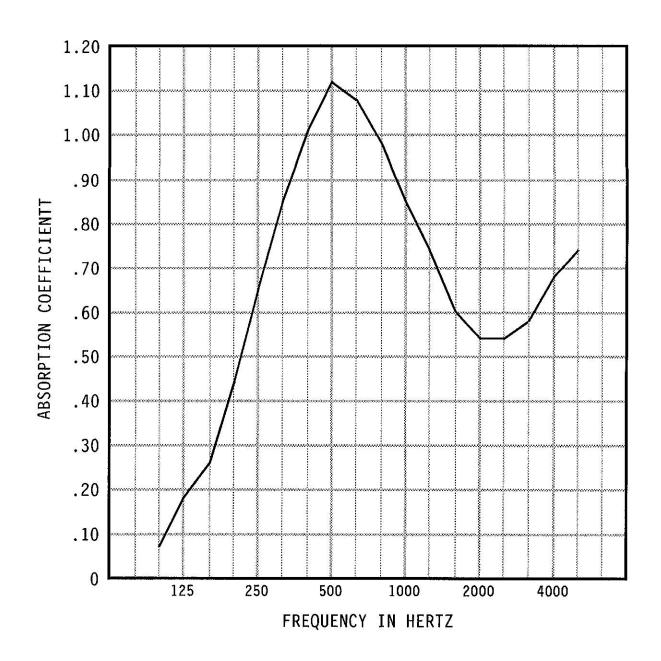
NRC 0.80

SAA 0.78

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Specimen Area: 63.58 sq.ft. Temperature: 66.4 deg. F Relative Humidity: 49 %