

**TEST REPORT**FOR: Madrid Inc.  
Santa Fe Springs, CASound Absorption Test  
RAL™-A07-042

ON: 2' x 2' Weave Coffe (Ceiling Tiles)

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CONDUCTED: 2 April 2007

TEST METHOD

The test method conformed explicitly with the requirements of the ASTM Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method: ASTM C423-07 and E795-05. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure (NVLAP Lab Code: 100227-0). A description of the measuring procedure and room qualifications is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as 2' x 2' Weave Coffe (Ceiling Tiles). The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.44 m (96 in.) long and 146 mm (5.75 in.) thick. The specimen consisted of sixteen (16) pieces of ceiling tiles. Each piece was 610 mm (24 in.) wide by 610 mm (24 in.) long and 98 mm (3.875 in.) thick. The ceiling tiles were placed on 3.5" thick R-13 fiberglass insulation consisting of four (4) pieces measuring nominally 584 mm (23 in.) wide by 2.4 m (93 in.) long and two (2) pieces were nominally 76 mm (3 in.) wide by 584 mm (93 in.) long. The specimen was tested in the laboratory's 292 m<sup>3</sup> (10,311 ft<sup>3</sup>) test chamber.

The weight of the entire specimen as measured was 68 kg (150 lbs), an average of 11.4 kg/m<sup>2</sup> (2.3 lbs/ft<sup>2</sup>). The area used in the calculations was 5.9 m<sup>2</sup> (64 ft<sup>2</sup>). The room temperature at the time of the test was 21°C (69°F) and 59±1% relative humidity.

MOUNTING A

The test specimen was laid directly against the test surface. The perimeter was sealed using wood and metal framing.

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THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



NVLAP Lab Code 100227-0

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# RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104  
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### TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	0.57	36.39
** 125	0.80	51.50
160	1.04	66.63
200	1.27	81.47
** 250	1.21	77.15
315	1.04	66.36
400	0.86	55.14
** 500	0.64	41.21
630	0.53	33.62
800	0.40	25.35
** 1000	0.29	18.78
1250	0.24	15.39
1600	0.21	13.68
** 2000	0.19	12.27
2500	0.18	11.51
3150	0.20	12.75
** 4000	0.21	13.23
5000	0.20	12.52

SAA = 0.59

NRC = 0.60

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### TEST RESULTS (Continued)

The sound absorption average (SAA) is defined as a single number rating, the average, rounded to the nearest 0.01, of the sound absorption coefficient of a material for the twelve one-third octave bands from 200 through 2500 Hz, inclusive.

The noise reduction coefficient (NRC) is defined from previous versions of this same test method as the average of the coefficients at 250, 500, 1000, and 2000 Hz, expressed to the nearest integral multiple of 0.05.

Tested by Dean Victor Approved by David L. Moyer  
Dean Victor David L. Moyer  
Senior Experimentalist Laboratory Manager

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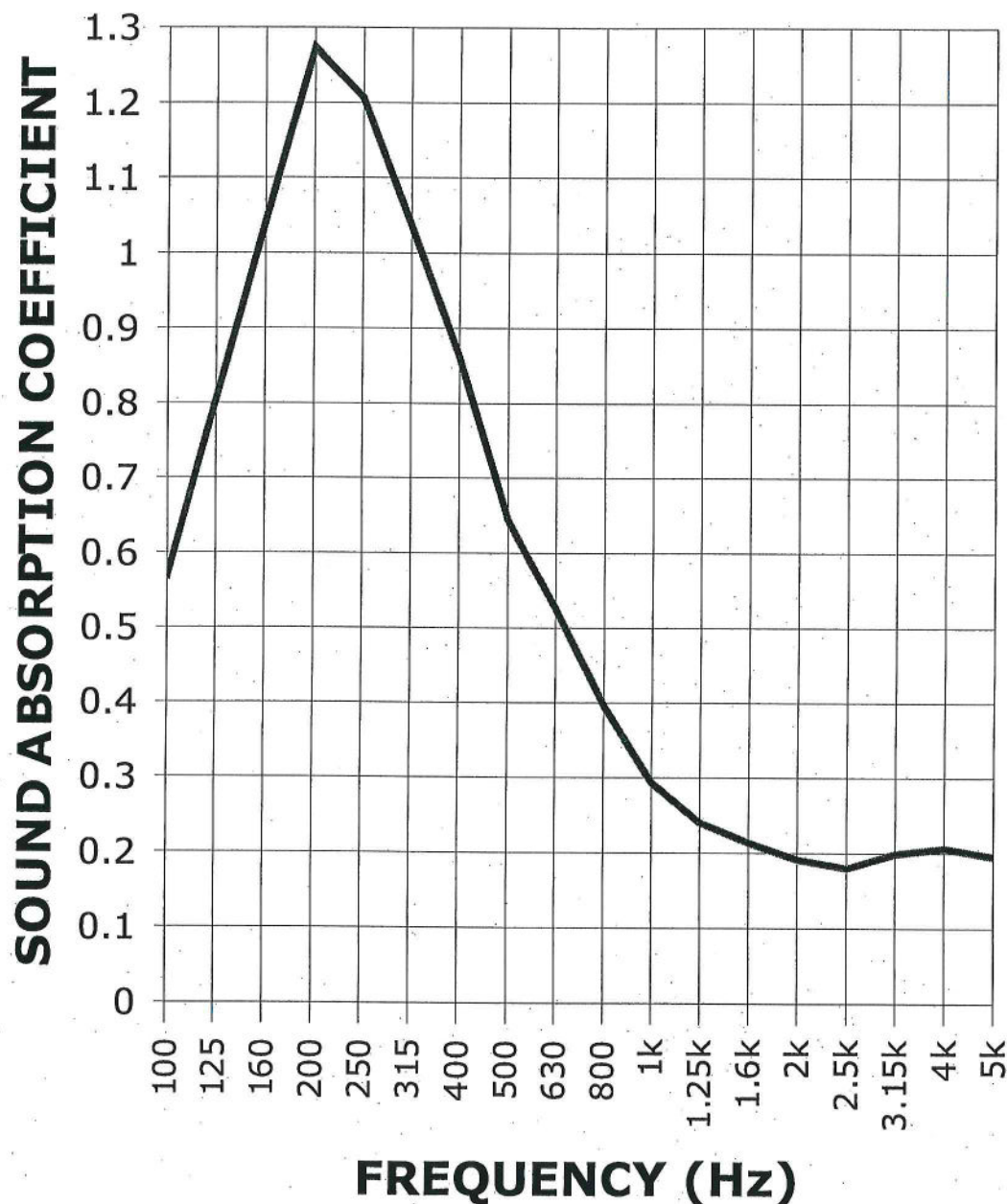
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