

## TEST REPORT

FOR: Radial Engineering Ltd.  
Port Coquitlam, British Columbia, Canada

Sound Absorption Test  
RAL™-A06-231

ON: 3" Broadway™

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CONDUCTED: 18 October 2006

### 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 C423-02a 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 3" Broadway™. The overall dimensions of the specimen as measured were nominally 2.74 m (108 in.) wide by 2.44 m (96 in.) long and 76 mm (3 in.) thick. The specimen consisted of ten (10) pieces each at 76 mm (3 in.) thick. Eight (8) pieces were nominally 610 mm (24 in.) wide by 1.22 m (48 in.) long and two (2) pieces were nominally 305 mm (12 in.) wide by 1.22 m (48 in.) long. The specimen was tested in the laboratory's 292 m<sup>3</sup> (10,311 ft<sup>3</sup>) test chamber.

The manufacturer's description of the specimen was as follows: Model F103-2448; Description: Broadband panels; Size: 24" x 48" - 3" thick; Construction: Fiberglass - 6 lbs per cu. ft.; Finish: Acoustic fabric; Edge: Square, hardened. A visual inspection verified the manufacturer's description of the specimen.

The weight of the entire specimen as measured was 65.3 kg (144 lbs), an average of 9.8 kg/m<sup>2</sup> (2 lbs/ft<sup>2</sup>). The area used in the calculations was 6.7 m<sup>2</sup> (72 ft<sup>2</sup>). The room temperature at the time of the test was 22±1°C (72±1°F) and 56±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

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Alion Science and Technology

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FOUNDED 1918 BY  
WALLACE CLEMENT SABINE

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### TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	0.68	48.91
** 125	0.92	66.12
160	0.82	59.25
200	0.89	64.06
** 250	0.91	65.69
315	1.00	72.27
400	1.01	72.75
** 500	1.00	72.01
630	1.01	72.90
800	1.00	71.69
** 1000	1.00	72.33
1250	1.03	74.20
1600	1.02	73.53
** 2000	1.02	73.74
2500	1.02	73.15
3150	1.01	72.46
** 4000	1.03	74.16
5000	1.04	74.64

SAA = 0.99

NRC = 1.00

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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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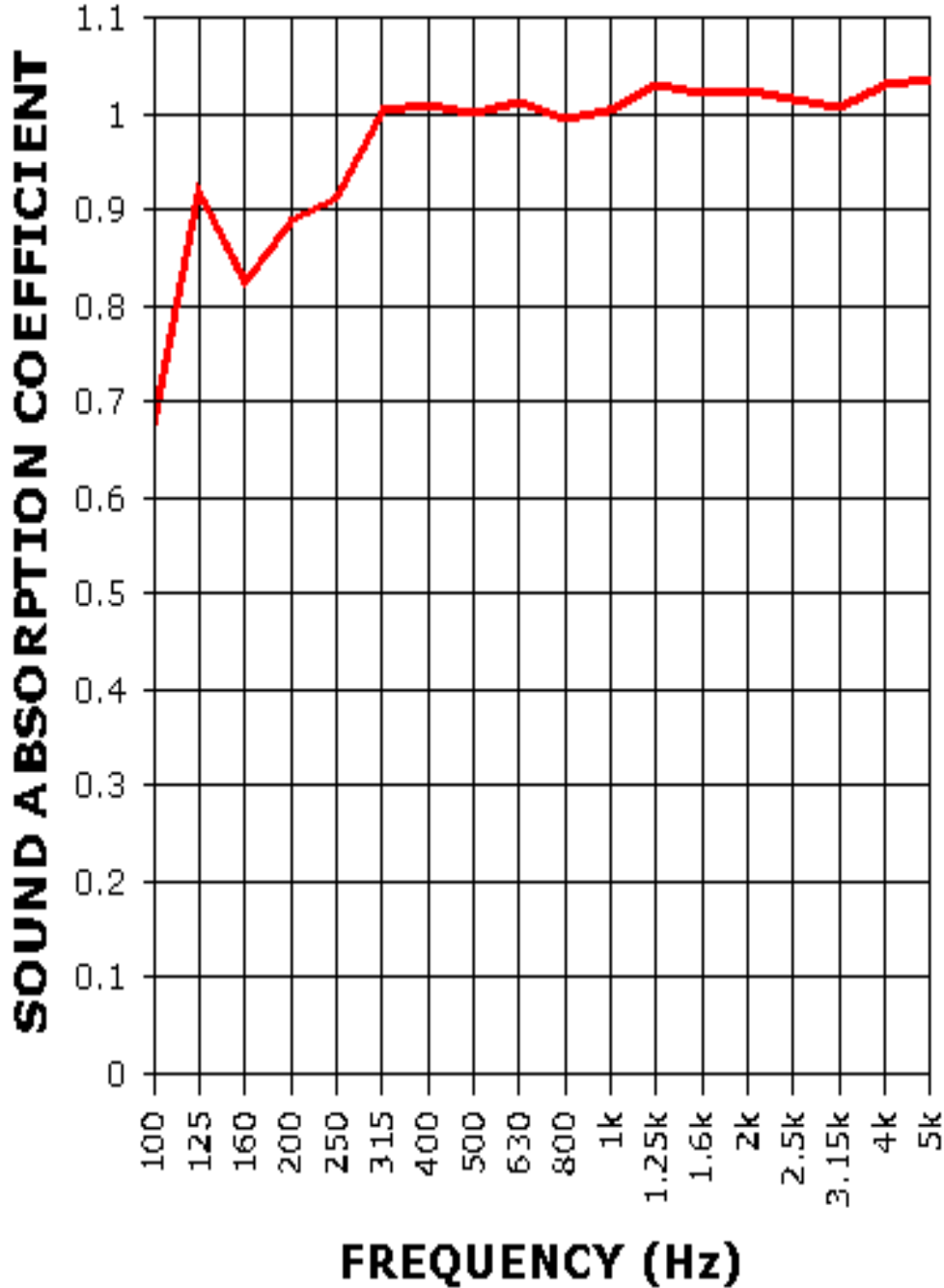


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**TEST REPORT**

**SOUND ABSORPTION REPORT  
RAL-A06-231**



**SAA=0.99  
NRC=1.00**

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