RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

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

Sound Absorption Test
RAL™-A06-220

ON: 2" Broadway™ on 2 Inch Spacers

CONDUCTED: 4 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 2" Broadway™ on 2 inch spacers. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.74 m (108 in.) long and 51 mm (2 in.) thick. The specimen consisted of eighteen (18) solid panels with lab supplied spacers. Each panel was 305 mm (12 in.) wide by 1.22 m (48 in.) long and 50 mm (2 in.) thick. The lab supplied spacers were 25 mm (1 in.) thick and were distributed evenly about the back perimeter of the panels. The entire specimen plus mounting as measured from the test floor was 76 mm (3 in.) thick. The specimen was tested in the laboratory's 292 m^3 (10,311 ft^3) test chamber.

The manufacturer's description of the specimen was as follows: Model F102-1248; Description: Control Columns; Size: 12" x 48" - 2" 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 44.9 kg (99 lbs), an average of 6.7 kg/m^2 (1.4 lbs/ft^2). The area used in the calculations was 6.7 m^2 (72 ft^2). The room temperature at the time of the test was 21±1ºC (70±1ºF) and 65% relative humidity.

MOUNTING F-25

The test specimen was laid on the spacers against the test surface. Perimeter edges were unsealed.

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TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	0.39	27.99
** 125	0.51	36.75
160	0.49	35.21
200	0.77	55.11
** 250	0.90	64.73
315	1.09	78.70
400	1.21	87.01
** 500	1.17	84.46
630	1.19	85.54
800	1.15	83.10
** 1000	1.12	80.50
1250	1.13	81.22
1600	1.12	80.58
** 2000	1.12	80.40
2500	1.07	76.96
3150	1.07	77.36
** 4000	1.08	77.76
5000	1.06	76.03

SAA = 1.09
NRC = 1.10

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.

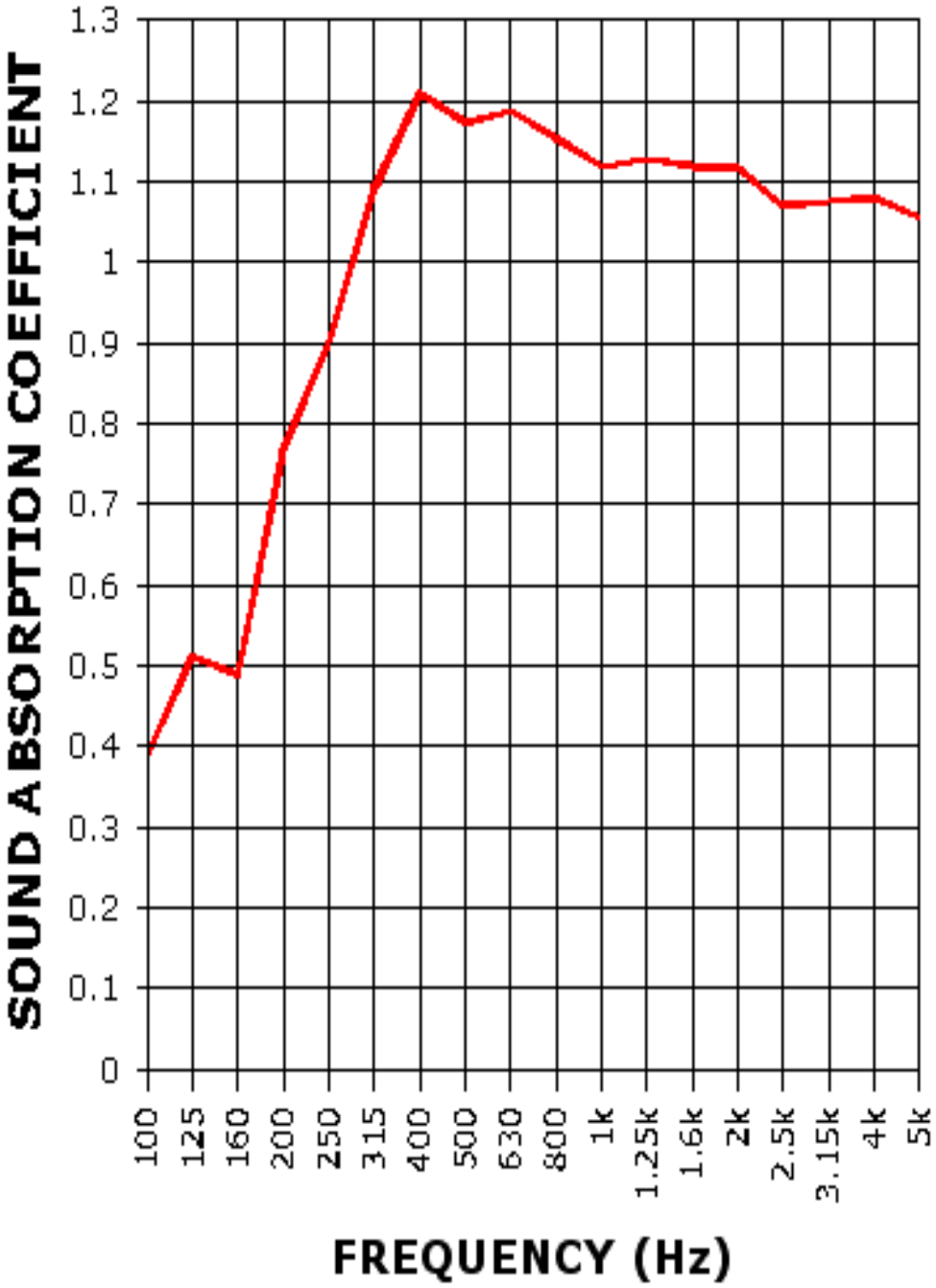
The noise reduction coefficient (NRC) is defined from previous versions of this same test method as the average of the coefficients at 250, 500, 1000, and 2000 Hz, expressed to the nearest integral multiple of 0.05.

Tested by _____ Approved by _____

Dean Victor
Senior Experimentalist

David L. Moyer
Laboratory Manager

SOUND ABSORPTION REPORT
RAL-A06-220



SAA=1.09
NRC=1.10