

SOUNDPROOFING, ACOUSTICS, NOISE & VIBRATION CONTROL SPECIALISTS

123 Columbia Court North •Suite 201 •Chaska, MN 55318 (952) 448-5300 •Fax (952) 448-2613 •(800) 448-0121

Email: <u>sales@acousticalsurfaces.com</u>
Visit our Website: <u>www.acousticalsurfaces.com</u>

## We Identify and S.T.O.P. Your Noise Problem

#### 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: Rendered by Manufacturer and Released to: Acoustical Surfaces, Inc. 123 Columbia Court North

Chaska, MN 55318

Sound Absorption Test RAL<sup>TM</sup>-A09-140

Page 1 of 4

ON: CFAB<sup>TM</sup> Cellulose Panels

CONDUCTED: 25 June 2009

#### **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 C423-08a 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 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 six (6) pieces. Each piece was 1.22 m (48 in.) wide by 914 mm (36 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 15.9 kg (35 lbs), an average of  $2.4 \text{ kg/m}^2$  (0.5 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°C (71°F) and 61% relative humidity.

#### MOUNTING A

The test specimen was laid directly against the test surface. The perimeter was sealed using 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.

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RALTM-A09-140

25 June 2009

Page 2 of 4

#### TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	0.38	27.69
** 125	0.39	27.83
160	0.36	25.84
200	0.51	36.90
** 250	0.63	45.05
315	0.91	65.44
400	1.03	73.93
** 500	1.18	84.67
630	1.19	85.90
800	1.16	83.56
** 1000	1.11	79.57
1250	1.09	78.44
1600	1.06	76.38
** 2000	1.06	76.03
2500	1.06	76.65
3150	1.05	75.42
** 4000	1.09	78.32
5000	1.11	79.58
	SAA = 1.00	
	NRC = 1.00	

NRC = 1.00

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TEST REPORT

RALTM-A09-140

25 June 2009 Page 3 of 4

#### 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

Senior Experimentalist

Approved by

David L. Moyer

Laboratory Manager

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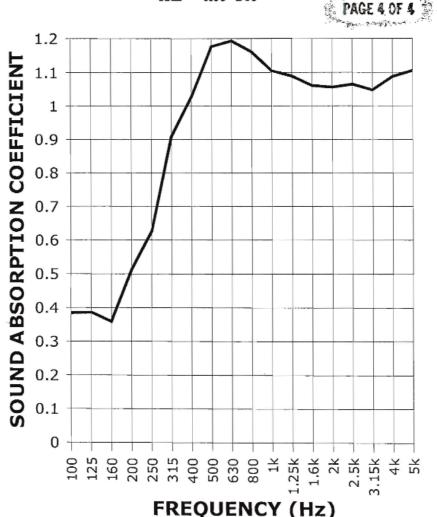
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SOUND ABSORPTION REPORT RAL - A09-140



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SAA = 1.00NRC = 1.00

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