



# Acoustical Surfaces, Inc.

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: [sales@acousticalsurfaces.com](mailto:sales@acousticalsurfaces.com)

Visit our Website: [www.acousticalsurfaces.com](http://www.acousticalsurfaces.com)

**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™-A09-191

ON: ½ Inch Recycled Cotton (aka CFAB™ Cellulose Panels)

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CONDUCTED: 29 September 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 test specimen was designated by the manufacturer as ½ inch recycled cotton. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.74 m (108 in.) long and 13 mm (0.5 in.) thick. The specimen consisted of six (6) pieces. Each piece was 914 mm (36 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 weight of the entire specimen as measured was 6.8 kg (15 lbs), an average of 1 kg/m<sup>2</sup> (0.2 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°C (72°F) and 58±1% 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.



NVLAP Lab Code 100227-0

ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.  
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.



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### TEST REPORT

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#### TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	-0.08	-5.67
** 125	0.05	3.36
160	0.04	2.86
200	0.07	5.07
** 250	0.09	6.31
315	0.14	9.89
400	0.20	14.53
** 500	0.33	24.06
630	0.42	30.55
800	0.54	38.97
** 1000	0.64	46.14
1250	0.75	54.07
1600	0.81	58.08
** 2000	0.87	62.56
2500	0.94	67.77
3150	0.99	71.55
** 4000	1.01	72.96
5000	1.03	74.31

SAA = 0.48

NRC = 0.50

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- Soundproofing Products • Sonex™ Ceiling & Wall Panels • Sound Control Curtains • Equipment Enclosures • Acoustical Baffles & Banners • Solid Wood & Veneer Acoustical Ceiling & Wall Systems
- Professional Audio Acoustics • Vibration & Damping Control • Fire Retardant Acoustics • Hearing Protection • Moisture & Impact Resistant Products • Floor Impact Noise Reduction
- Sound Absorbers • Noise Barriers • Fabric Wrapped Wall Panels • Acoustical Foam (Frog Grate) • Acoustical Sealants & Adhesives • Outdoor Noise Control • Assistive Listening Devices



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### TEST REPORT

RAL™-A09-191

29 September 2009

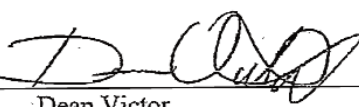
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#### TEST RESULTS (Continued)

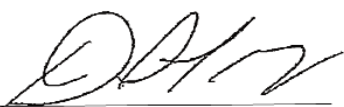
The sound absorption average (SAA) is defined as a single number rating, the average, rounded to the nearest 0.01, of the sound absorption coefficient of a material for the twelve one-third octave bands from 200 through 2500 Hz, inclusive.

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  
Senior Experimentalist

Approved by

  
David L. Moyer  
Laboratory Manager

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**NVLAP**

NVLAP Lab Code 100227-0

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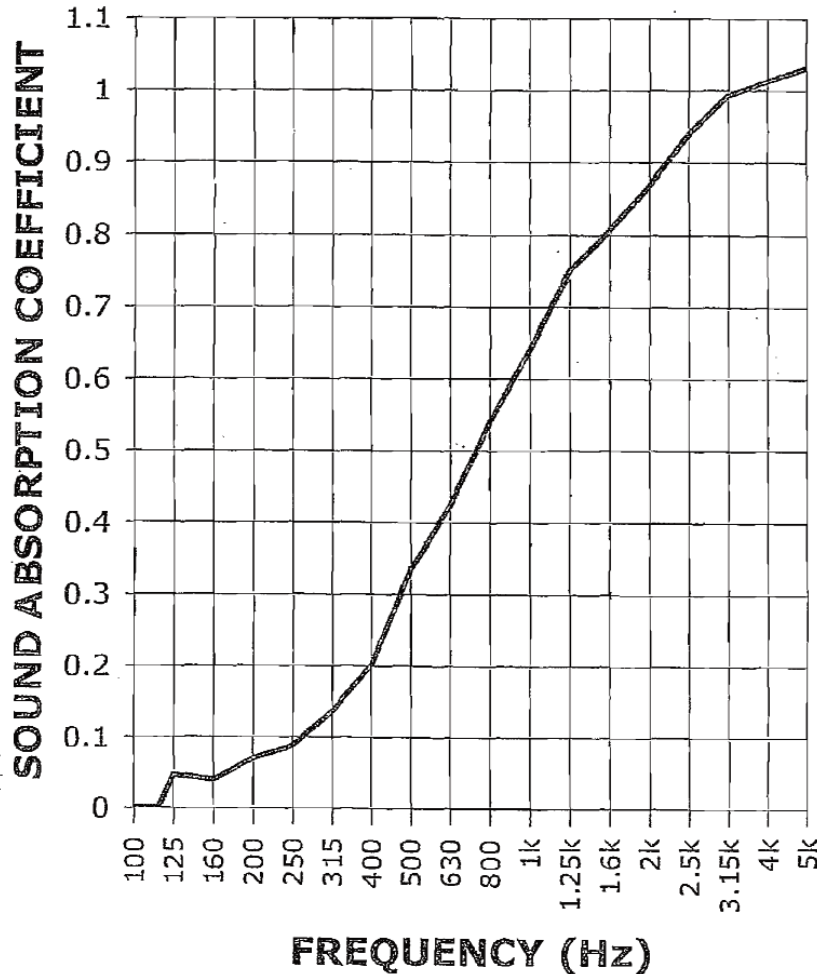
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### TEST REPORT

SOUND ABSORPTION REPORT

RAL - A09-191

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SAA = 0.48

NRC = 0.50

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- Sound Absorption • Noise Barriers • Fabric Wrapped Wall Panels • Acoustical Panels (Fiberglass) • Acoustical Ceilings • Acoustical Ceilings • Acoustical Ceilings • Acoustical Ceilings • Acoustical Ceilings



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### TEST REPORT

FOR: Rendered by Manufacturer and Released to:  
Acoustical Surfaces, Inc. 123 Columbia Court North  
Chaska, MN 55318

Sound Absorption Test  
RAL™-A08-022

ON: Specimen #2, 0.375 Inch Thick Insulation (aka CFAB™ Cellulose Panels)

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CONDUCTED: 18 February 2008

#### 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 C423-07a 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 Specimen #2, 0.375 inch thick insulation. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.74 m (108 in.) long and 9 mm (0.37 in.) thick. The specimen consisted of six (6) pieces. Each piece was 914 mm (36 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 weight of the entire specimen as measured was 11.3 kg (25 lbs), an average of 1.7 kg/m<sup>2</sup> (0.4 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 21°C (70°F) and 57±2% 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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NVLAP Lab Code 100227-0

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