



**Title: Sound Absorption Test Results**

**Product: 1" CFAB (3 lb. pcf)**

Application: Wall Mount

Testing Standard: ASTM C423

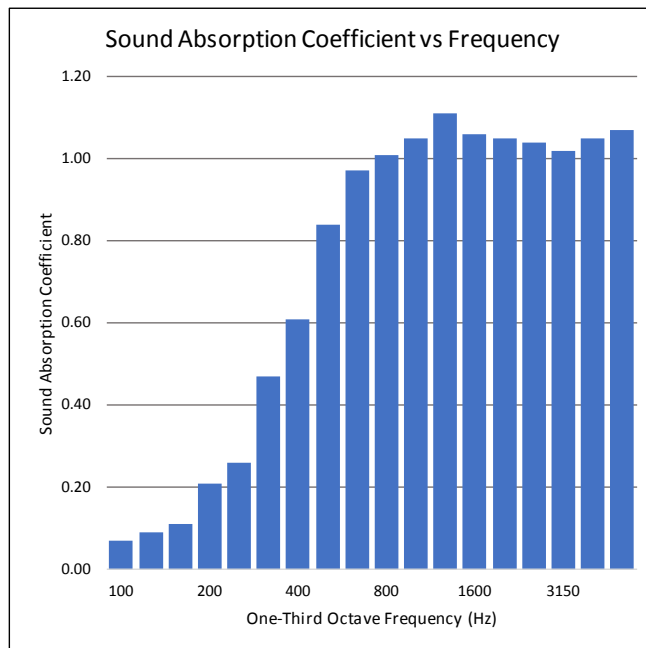
Test Date: 3/20/2008

*Why this test:* This test evaluates a products efficiency of absorbing sound at multiple frequencies. The test simulates the product installation on a wall or ceiling.

Test Result Summary: NRC - 0.81; SAA - 0.80

<b>NRC</b>	<b>SAA</b>
<b>0.81</b>	<b>0.80</b>

Frequency (Hz)	Absorption Coefficient
100	0.07
125	0.09
160	0.11
200	0.21
250	0.26
315	0.47
400	0.61
500	0.84
630	0.97
800	1.01
1000	1.05
1250	1.11
1600	1.06
2000	1.05
2500	1.04
3150	1.02
4000	1.05
5000	1.07



Test ID: A08-044

**ASI TEST RESULT DISCLAIMER**

ASI makes every effort to ensure the accuracy and reliability of the information provided. Laboratory testing is conducted by independent testing organizations. ASI does not guarantee that field tests or independent tests will not vary.



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1512 BATAVIA AVENUE  
GENEVA, ILLINOIS 60134

Alion Science and Technology

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### TEST REPORT

FOR: Rendered by Manufacturer and Released to:  
Acoustical Surfaces Inc.

Sound Absorption Test  
RAL™-A08-044

ON: 1 Inch 1800 GSM 80/20

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CONDUCTED: 20 March 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 1 inch 1800 GSM 80/20. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.74 m (108 in.) long and 25 mm (1 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 14.1 kg (31 lbs), an average of 2.1 kg /m<sup>2</sup> (0.43 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 59% 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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#### TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	0.07	4.78
**125	0.09	6.25
160	0.11	7.67
200	0.21	15.19
**250	0.26	18.89
315	0.47	33.62
400	0.61	44.26
**500	0.84	60.39
630	0.97	69.77
800	1.01	72.79
**1000	1.05	75.39
1250	1.11	80.03
1600	1.06	76.68
**2000	1.05	75.38
2500	1.04	74.82
3150	1.02	73.09
**4000	1.05	75.53
5000	1.07	76.88

**SAA = 0.81**  
**NRC = 0.80**

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NVLAP Lab Code 100227-0

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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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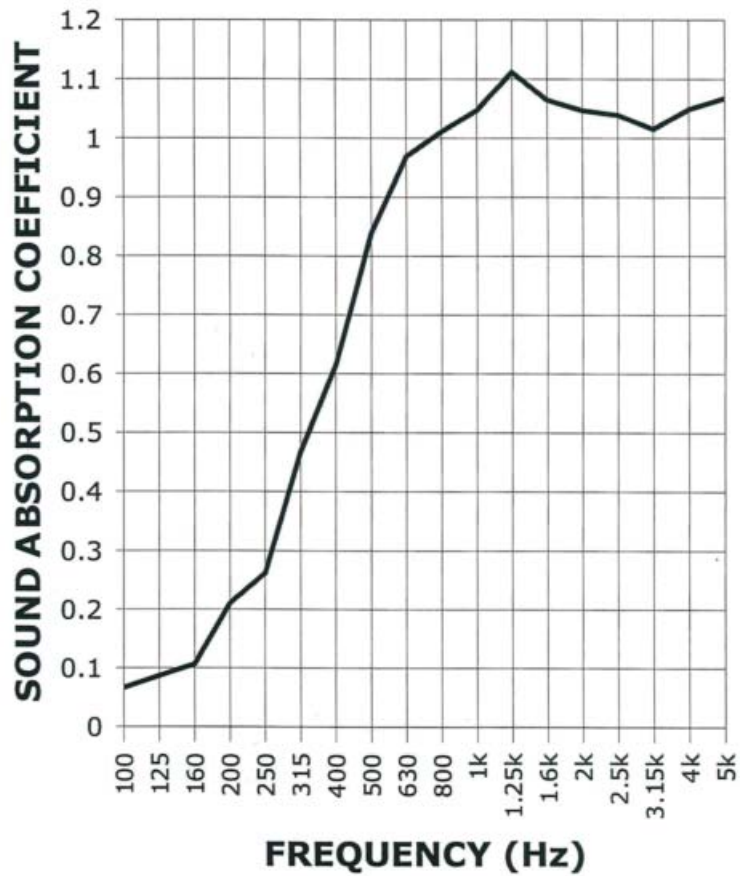
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## TEST REPORT

SOUND ABSORPTION REPORT  
RAL - A08-044

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SAA = 0.81  
NRC = 0.80

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