



Title: Sound Absorption Test Results

Product: 1-1/8" Fabric Wrapped Panel

Application: Wall & Ceiling

Testing Standard: ASTM C423 E-Mount with 1/4" airspace

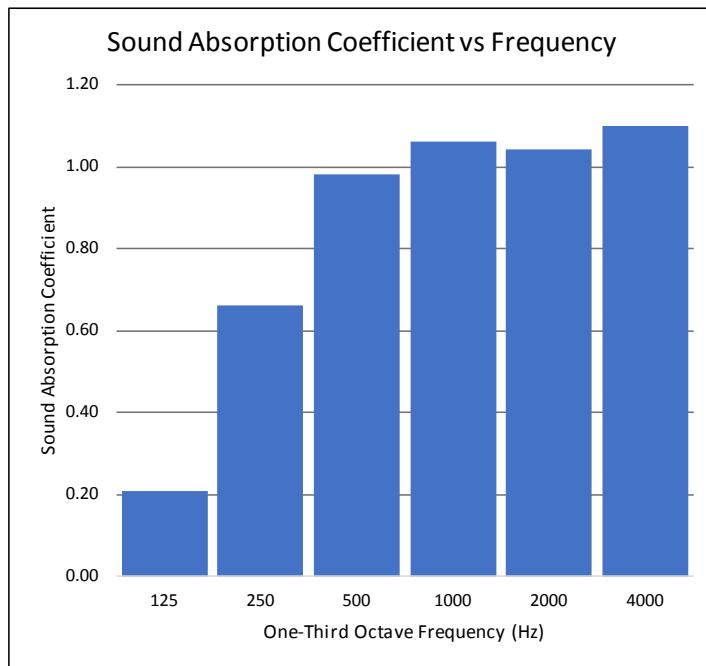
Test Date: 02/16/2000

Why this test: This test evaluates a products efficiency of absorbing sound at multiple frequencies. The test simulates the product's acoustical performance with a direct installation on a wall or ceiling.

Test Result Summary: NRC - 0.95

NRC
0.95

Frequency (Hz)	Absorption Coefficient
125	0.21
250	0.66
500	0.98
1000	1.06
2000	1.04
4000	1.10



Test ID: 18 0-0088

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PROJECT NUMBER: 18 0-0088

PAGE: 1 of 2

DATE: Feb 16, 2000

SOUND ABSORPTION - ASTM C423-90a

INTRODUCTION:

This report presents the results of a Noise Reduction Coefficient (NRC) test conducted on a High Impact Acoustical Wall Panels manufactured and submitted on February 4, 2000 with the testing completed on February 15, 2000.

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TEST METHOD:

ASTM C 423-90a, "Sound Absorption and Sound Absorption Coefficients by th Reverberation Room Method" was followed in every respect.

Absorption coefficients are the fraction of diffuse incident sound absorbed by the specimen and are expressed in sabins per square foot. The NRC is the average of the absorption coefficients for 250, 500, 1000, and 2000 Hertz and is reported to the nearest integral of 0.05.

The temperature and relative humidity of the chamber during the tests were 72°F and 52%, respectively.

TEST EQUIPMENT:

<u>Manufacturer</u>	<u>Model</u>	<u>Serial #</u>	<u>Description</u>
Norwegian Electronics	NE830	11511	Real Time Spectrum Analyzer
Brüel & Kjær	3923	815424	Rotating Microphone Boom
Larson-Davis	2560	1032	Pressure Condenser Microphone

PROJECT NUMBER: 18 0-0088

PAGE: 2 of 2

DATE: Feb 16, 2000

SPECIMEN IDENTIFICATION TEST ONE:

Manufacturer : Rendered by Manufacturer for Acoustical Surfaces Inc.
Type : High Impact Acoustical Wall Panel
Nom Dimensions (W x H x D) : 4' x 8' x 1-1/8"
Weight : 25.0 lbs. (0.78 psf)
Surface Area : 32.0 ft².
Total Surface Area Tested : 64 ft². – consisting of 2 specimens.
Mounting Type : Type E – 1/4" air space off floor.
Specimen Description : 1/8", 16-20 PCF fiberglass impact layer bonded to 1" 6.0 PCF fiberglass core, 100% polyester fabric facing.

1-1/8"
RESULTS – TEST ONE:

Frequency Hz	Abs. Coefficients	Uncertainty %
125	0.21	4.8
250	0.66	3.3
500	0.98	1.9
1000	1.06	1.5
2000	1.04	1.1
4000	1.10	0.9

Noise Reduction Coefficient (NRC) = 0.95

Freq. = Octave band center frequency.
Abs. Coefficient = Sound absorption coefficient (extended plane applications)
Uncertainty = % uncertainty of the absorption coefficient for 95% confidence