



Title: Sound Absorption Test Results

Product: 1" Echo Eliminator in 3/4" Grid

Application: Ceiling

Testing Standard: ASTM C423 A-Mount with 3/4" air space

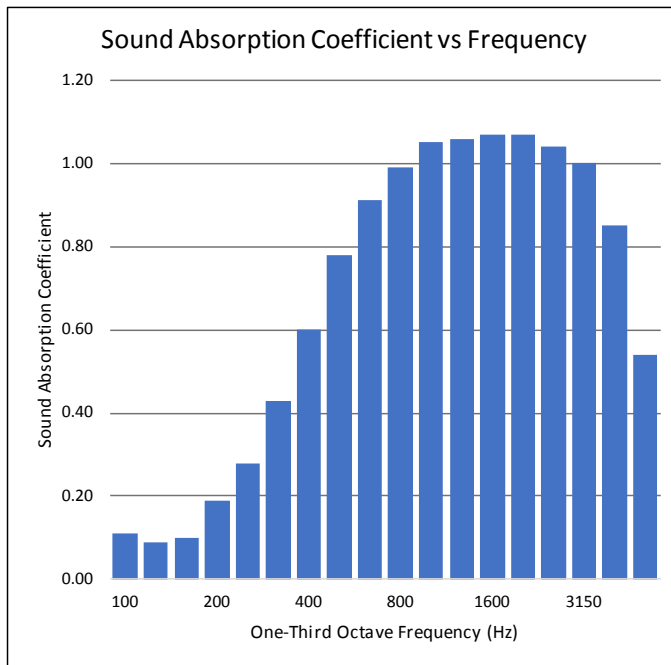
Test Date: 09/26/2000

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 ceiling installation and 3/4" air space.

Test Result Summary: NRC - 0.80; SAA - 0.68

NRC	SAA
0.80	0.68

Frequency (Hz)	Absorption Coefficient
100	0.11
125	0.09
160	0.10
200	0.19
250	0.28
315	0.43
400	0.60
500	0.78
630	0.91
800	0.99
1000	1.05
1250	1.06
1600	1.07
2000	1.07
2500	1.04
3150	1.00
4000	0.85
5000	0.54



Test ID: 18 0-0730.6

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STOCK / TWIN CITY TESTING CORPORATION
662 Cromwell Avenue
St. Paul, Minnesota 55114

SOUND ABSORPTION TESTING CONDUCTED
ON A WALL PANEL CONSISTED OF ONE LAYER
OF BAFF NOISE STOP ECHO ELIMINATOR™
ACOUSTICAL RECYCLED COTTON INSULATION
ON A 3/4" GRID

Prepared for:
ACOUSTICAL SURFACES – DIVISION OF
ARCHITECTURAL SURFACES, INC.
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Client Purchase Order Number 00012348

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The test results contained in this report pertain only to the samples submitted for testing and not necessarily to all similar products.

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SOUND ABSORPTION - ASTM C423-99a

INTRODUCTION:

This report presents the results of Sound Absorption testing conducted on a wall panel consisting of one 1" layer of Noise Stop™ Echo Eliminator BAFP insulation submitted by Acoustical Surfaces. This work was requested by Mr. Mike Nixon on September 6, 2000 with the testing conducted on September 14, 2000.

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TEST RESULTS SUMMARY:

The Noise Reduction Coefficient (NRC) value of the tested specimen was **0.80**. A detailed data sheet is provided below under "TEST RESULTS".

TEST PROCEDURE:

ASTM: C423-99a, "Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method" was followed in every respect. Eight- 2' x 4' x 1" panels were joined together to make one extended plane surface of 64 square feet which was then placed on the floor of the reverberation chamber. Further mounting and configuration details are provided under "TEST RESULTS" below.

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.

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
Compaq Computer	V20 CIO	A942CZGZE580	Custom Designed Software

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TEST RESULTS:

Manufacturer : Acoustical Surfaces
Type : Panels – layer BAFP Noise Stop Echo Eliminator on a 3/4" gird
Dimensions (W x H x D) : 2.0' x 4.0' x 1"
Weight : 18 lbs. (0.28 psf)
Surface Area : 8.0 ft²
Total Surface Area : 64.0 ft² – consisting of 8 panels
Mounting Type : Type A with 3/4" air space

Test No. 18 0-0730.6

Frequency Hz	Absorption Coefficients	Absorption (Sabins)
100	0.11	6.99
125	0.09	5.58
160	0.10	6.67
200	0.19	12.12
250	0.28	18.23
315	0.43	27.60
400	0.60	38.21
500	0.78	49.65
630	0.91	58.34
800	0.99	63.21
1000	1.05	66.89
1250	1.06	68.06
1600	1.07	68.60
2000	1.07	68.46
2500	1.04	66.77
3150	1.00	64.02
4000	0.85	54.72
5000	0.54	34.86

Noise Reduction Coefficient (NRC) = 0.80

The NRC frequencies are at 250, 500, 1000, and 2000 Hz

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