



Title: Sound Absorption Test Results

Product: 6 baffles - 2" Sound Silencer

Application: Ceiling

Testing Standard: ASTM C423 with baffles suspended on 2 cables - 16" spacing between baffles - 45" between cables

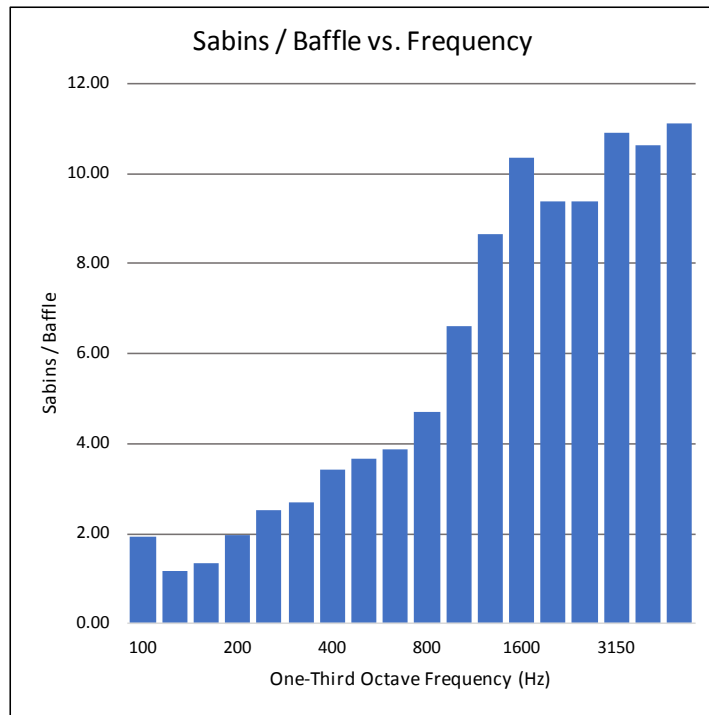
Test Date: 09/26/2000

Why this test: This test evaluates a products efficiency of absorbing sound at multiple frequencies. The test simulates the product's acoustical performance installed as hanging baffles.

Test Result Summary: Sabins / Baffle average at NRC frequencies - 5.55

Sabins / Baffle average at NRC frequencies	
5.55	

Frequency (Hz)	Absorption (Sabins/Baffle)
100	1.95
125	1.17
160	1.36
200	1.97
250	2.53
315	2.69
400	3.42
500	3.67
630	3.87
800	4.71
1000	6.61
1250	8.66
1600	10.34
2000	9.39
2500	9.37
3150	10.92
4000	10.64
5000	11.11



Test ID: 18 0-0730.10

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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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DATE: September 26, 2000

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

SOUND ABSORPTION TESTING CONDUCTED
ON SIX BAFFLES CONSISTING
OF 2" THICK PEPP

Prepared for:
ACOUSTICAL SURFACES, INC

Attn: Mr. Steve Anderson
123 Columbia Court North, Suite 201
Chaska, MN 55318

Client Purchase Order Number 00012348

Test Conducted By:



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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 six baffles consisting of a 2" thick PEPP material submitted by Acoustical Surfaces. This work was requested by Mr. Mike Nixon on September 6, 2000 with the testing conducted on September 14, 2000.

This report must not be reproduced except in its entirety with the approval of Stork / Twin City Testing Corporation. The data in this report relates only to the item tested.

Stork / Twin City Testing Corporation has been accredited by the U.S. Department of Commerce and the National Institute of Standards and Technology (NIST, formerly NBS) under their National Voluntary Laboratory Accreditation Program (NVLAP) for conducting this test procedure. This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

TEST RESULTS SUMMARY:

The Sabins / Baffle average of the PEPP material was **5.55** at the NRC frequencies of 250, 500, 1000 and 2000 Hertz. 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. The baffles were suspended above the floor of the reverberation chamber on cables. The full mounting and configuration details are provided under "TEST RESULTS" below.

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, Inc
Type : Baffles – 2" layer PEPP.
Dimensions (W x H x D) : 2' x 4' x 1"
Weight : 22 lbs. (0.46 psf)
Surface Area : 8.0 ft²
Total Surface Area : 96.0 ft² – consisting of 6 baffles – (2 sides)
Mounting Type : 3 specimens each, suspended on 2 cables – 16" between specimens –
41" from floor to specimens – 45" between cables

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Frequency Hz	Absorption Coefficients)
100	1.95
125	1.17
160	1.36
200	1.97
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400	3.42
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2500	9.37
3150	10.92
4000	10.64
5000	11.11

Sabins / Baffle Average (NRC Frequencies) = 5.55

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

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