





# 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)

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## We Identify and **S.T.O.P.** Your Noise Problems

**PROJECT NUMBER:** 18 0-0730.9

**PAGE:** 2 of 3

**DATE:** September 26, 2000

### SOUND ABSORPTION - ASTM C423-99a

#### INTRODUCTION:

This report presents the results of Sound Absorption testing conducted on six baffles consisting of a 1" 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.

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#### TEST RESULTS SUMMARY:

The Sabins / Baffle average of the PEPP material was **3.55** 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  
 Type : Baffles – 1" layer PEPP.  
 Dimensions (W x H x D) : 2' x 4' x 1"  
 Weight : 12 lbs. (0.25 psf)  
 Surface Area : 8.0 ft<sup>2</sup>  
 Total Surface Area : 96.0 ft<sup>2</sup> – 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

**Test No. 18 0-0730.9**

Frequency Hz	Absorption Coefficients)
100	1.61
125	0.82
160	0.93
200	1.43
250	2.18
315	2.31
400	2.74
500	2.79
630	2.90
800	2.96
1000	3.03
1250	3.25
1600	4.15
2000	6.29
2500	8.64
3150	9.18
4000	8.36
5000	9.46

**Sabins / Baffle Average (NRC Frequencies) = 3.55**

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

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