Acoustical Surfaces, Inc.
We identify and S.T.O.P. Your Noise Problems
Sound Transmission Obscuring Products
Soundproofing, Acoustics, Noise & Vibration Control Specialists ™

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SOUNDPROOFING, ACOUSTICS, NOISE & VIBRATION CONTROL SPECIALISTS

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

PROJECT NUMBER: 3018 02 50173-2

DATE: October 7, 2002

SOUND ABSORPTION - ASTM C423-90a

INTRODUCTION:

This report presents the results of a Noise Reduction Coefficient (NRC) test conducted on a (4) Gel-coated Sound Diffusers. This test was requested on August 18, 2002 with the testing completed on October 7, 2002.

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

Stock / 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

SUMMARY OF RESULTS: See “TEST DATA” on page 4 for detailed data and graphs.)

When tested using the Type A mounting(flat on the reverberaton chamber floor), the test sample obtained an NRC rating of 0.05.

SPECIMEN IDENTIFICATION:

The four specimens tested were identified as Type BD44 molded fiberglass, Barrel Diffusers with a gelcoat finish, manufactured by Sound Seal. Each specimen had dimensions of 46 5/8" x 46 5/8" x 7" deep and weighed 22 lbs. or 1.46 PSF.

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DATE: October 7, 2002

TEST METHOD:

ASTM C 423-90a, "Sound Absorption and Sound Absorption Coefficients by th Reverberation Room Method" was followed in every respect. The four (4) test specimens has a total area of 60.4 ft^2. and were positioned tightly together on the reverberation chamber floor in a square (Type A mounting).

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 60%, respectively.

TEST EQUIPMENT:

Manufacturer	Model	Serial #	Description
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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ROJECT NUMBER: 3018 02 50173-2
1/3 Octave Band

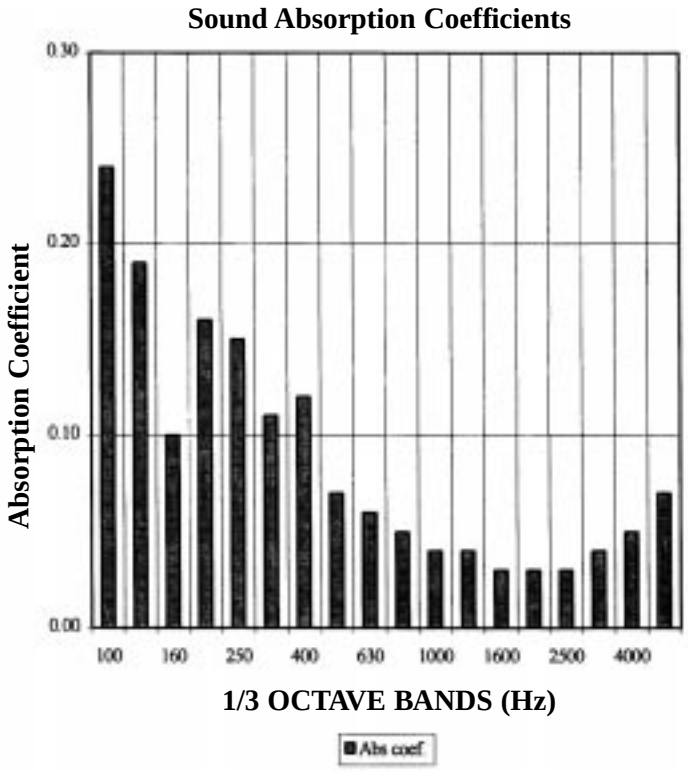
DATE: October 7, 2002

TEST RESULTS:

Project No. 3018 02 50173

Tested by: Jason Burggraff

1/3 Oct. Band, Hz	Abs coef.	Abs Sabins*
100	0.24	3.56
125	0.19	2.92
160	0.10	1.49
200	0.16	2.45
250	0.15	2.27
315	0.11	1.63
400	0.12	1.78
500	0.07	1.13
630	0.06	0.83
800	0.05	0.68
1000	0.04	0.66
1250	0.04	0.56
1600	0.03	0.43
2000	0.03	0.52
2500	0.03	0.41
3150	0.04	0.58
4000	0.05	0.76
5000	0.07	0.99
NRC	0.05	
SAA	0.07	



Abs coef. = Absorption Coefficient
Abs Sabins = Absorption (Sabins)
*=per sample (1 of 4 samples)

SPECIMEN IDENTIFICATION:

Manufacturer: Rendered by manufacturer for Acoustical Surfaces Inc.
Test Date: 7-Oct-02

Model: BD44 Barrel Diffuser
Temp: 23°C RH: 60%

Specimen Description:

Type: Gel-coated, Fiberglass Barrel Diffuser

Mounting type: Type A - Flat on floor, 4 Diffusers arranged in a square pattern.

Nominal Dimensions:

Width, in: 46.6
Height, in: 46.6
Depth in: 7.0
Weight, lb: 22.0