

MAXIM TECHNOLOGIES, INC.
662 Cromwell Avenue
St. Paul, Minnesota. 55114

**NOISE REDUCTION COEFFICIENT (NRC) TEST PERFORMED ON ALL NOISE CONTROL GUILFORD
BAFFLES 1 1/2" THICK 1.6 PCF CORE
MANUFACTURED BY
ALL NOISE CONTROL**

PREPARED FOR:

**ALL NOISE CONTROL
6801 LAKE WORTH RD 323
LAKE WORTH, FL 33467**

Client Purchase Order Number: 3978

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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Austin Research Engineers • Chen-Northern • Empire Soils Investigations
Kansas City Testing. Southwestern Laboratories • Twin City Testing

SOUND ABSORPTION TEST - ASTM C423-90a

INTRODUCTION:

This report presents the results of Sound Absorption tests conducted on four Guilford Baffles manufactured and submitted by All Noise Control. This test was requested by All Noise Control on October 7, 1998 and was conducted on October 20, 1998.

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SUMMARY OF RESULTS:

The average Sound Absorption of the material described below was 13.6 Sabins/Baffle. (See individual frequency values below under TEST RESULTS).

SPECIMEN IDENTIFICATION:

The 2' x 4' x 1-1/2" thick baffles were described as being Guilford Baffles that consisted of a 1.6 PCF core with two standard grommets on one long side for suspension purposes. Each Guilford Baffle weighed 2.4 pounds.

The four baffles were tested at a spacing of 24" off center in a two-row array approximately 66" off the floor of the reverberation chamber.

TEST METHOD:

ASTM: C423-90a, "Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method" was followed in every respect.

Absorption coefficients are the fraction of diffuse incident sound absorbed by the specimen and is expressed in sabins per square foot. Baffle absorption is expressed as Sabin's of Absorption per individual baffle.

The temperature and relative humidity of the chamber during the tests was 75°F and 58%, respectively.

TEST EQUIPMENT:

<u>Manufacturer</u>	<u>Model</u>	<u>Serial #</u>
Norwegian Electronics	NE830	11511
Bruel & Kjxr	3923	815424
Larson-Davis	2560	1032

TEST RESULTS:

Description

Real Time Spectrum Analyzer Rotating Microphone Boom Pressure Condenser Microphone
 "Guilford Baffles"

Freq. (Hz)	Sabins / Baffle	Uncertainty %
125	1.95	5.5
225	6.8	1.5
500	13.2	2.4
1000	17.0	0.9
2000	17.4	1.5
4000	17.2	0.6

Average Sabins / Baffle (250-2000 Hz) = 13.6

Freq. = Octave band center frequency

Abs. Coefficient = Sound absorption coefficient (extended plane applications)

Uncertainty = % uncertainty of the absorption coefficient for 95 % confidence