



**STORK**

**Twin City Testing Corporation**

PROJECT NUMBER: 18 0-0730.12

PAGE: 1 of 3

DATE: September 26, 2000

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

SOUND ABSORPTION TESTING CONDUCTED  
ON THREE BAFFLES CONSISTING OF  
1" THICK BAFP INSULATION

Prepared for:  
ACOUSTICAL SURFACES – DIVISION OF  
ARCHITECTURAL SURFACES, INC.  
Attn: Mr. Steve Anderson  
123 Columbus Court North, Suite 201  
Chaska, MN 55318

Client Purchase Order Number 00012348

Test Conducted By:

Matthew N. Botz  
Project Engineer  
Product Testing Department  
(651) 659-7353

Reviewed By:

Richard O. Thomalla  
Acoustical Services Manager  
Product Testing Department  
(651) 659-7310

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

An Affirmative Action



Equal Opportunity Employer





**PROJECT NUMBER:** 18 0-0730.12

**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 three baffles consisting of 1" thick 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.

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 tested specimens was **23.25** 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:**

<b><u>Manufacturer</u></b>	<b><u>Model</u></b>	<b><u>Serial #</u></b>	<b><u>Description</u></b>
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

Information and statements in this report are derived from material, information and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of the material tested or analyzed for any particular purpose or use. This report is the confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory. The recording of false, fictitious or fraudulent statements or entries on this document



**ACOUSTICAL**

Sound Solutions for Over 35 Years

**SURFACES INC.**

Soundproofing | Acoustics | Noise & Vibration Control

**PROJECT NUMBER:** 18 0-0730.12

**PAGE:** 3 of 3

**TEST RESULTS:**

**DATE:** September 26, 2000

Manufacturer : Acoustical Surfaces  
Type : Baffles – 1" layer BAFP.  
Dimensions (W x H x D) : 2' x 4' x 1"  
Weight : 7 lbs. (0.29 psf)  
Surface Area : 8.0 ft<sup>2</sup>  
Total Surface Area : 48.0 ft<sup>2</sup> – consisting of 3 baffles-(2 sides)  
Mounting Type : 3 specimens suspended suspended between 2 cables–36" between baffles

**Test No. 18 0-0730.12**

Frequency Hz	Absorption Coefficients)
100	9.34
125	8.43
160	9.01
200	10.38
250	14.27
315	16.83
400	19.77
500	21.92
630	25.59
800	28.90
1000	33.60
1250	36.41
1600	39.41
2000	40.88
2500	42.53
3150	42.92
4000	41.53
5000	37.91

**Sabins / Baffle Average (NRC Frequencies) = 23.25**

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

Information and statements in this report are derived from material, information and/or specifications furnished by the client and exclude any expressed or implied warranties as to the fitness of the material tested or analyzed for any particular purpose or use. This report is the confidential property of our client and may not be used for advertising purposes. This report shall not be reproduced except in full, without written approval of this laboratory. The recording of false, fictitious or fraudulent statements or entries on this document