

# 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: <a href="mailto:sales@acousticalsurfaces.com">sales@acousticalsurfaces.com</a>
Visit our Website: <a href="mailto:www.acousticalsurfaces.com">www.acousticalsurfaces.com</a>

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

**PROJECT NUMBER:** 18 0-0088 **PAGE:** 1 of 2

**DATE:** Feb 16, 2000

## **SOUND ABSORPTION - ASTM C423-90a**

### **INTRODUCTION:**

This report presents the results of a Noise Reduction Coefficient (NRC) test conducted on a High Impact Acostical Wall Panels manufactured and submitted on February 4, 2000 with the testing completed on February 15, 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.

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

#### **TEST METHOD:**

ASTM C 423-90a, "Sound Absorption and Sound Absorption Coefficients by th Reverberation Room Method" was followed in every respect.

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 52%, respectively.

## **TEST EQUIPMENT:**

<b>Manufacturer</b>	<b>Model</b>	<u>Serial #</u>	<b>Description</b>
Norwegian Electronics	NE830	11511	Real Time Spectrum Analyzer
Brüel & Kjær	3923	815424	Rotating Microphone Boom
Larson-Davis	2560	1032	Pressure Condenser Microphone

Information arid 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 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: <a href="mailto:sales@acousticalsurfaces.com">sales@acousticalsurfaces.com</a>
Visit our Website: <a href="mailto:www.acousticalsurfaces.com">www.acousticalsurfaces.com</a>

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

**PROJECT NUMBER:** 18 0-0088 **PAGE:** 2 of 2

**DATE:** Feb 16, 2000

### **SPECIMEN IDENTIFICATION TEST ONE:**

Manufacturer: Rendered by Manufacturer for Acoustical Surfaces Inc.

Type: High Impact Acoustical Wall Panel

Nom Dimensions (W x H x D):  $4' \times 8' \times 1-1/8"$ 

Weight: 25.0 lbs. (0.78 psf)

Surface Area: 32.0 ft<sup>2</sup>.

Total Surface Area Tested: 64 ft<sup>2</sup>. – consisting of 2 specimens.

Mounting Type : Type E - 1/4" air space off floor.

Specimen Description: 1/8", 16-20 PCF fiberglass impact layer bonded to 1" 6.0 PCF

fiberglass core, 100% polyester fabric facing.

1-1/8" RESULTS – TEST ONE:

Frequency Hz	Abs. Coefficients	Uncertainty %
125	0.21	4.8
250	0.66	3.3
500	0.98	1.9
1000	1.06	1.5
2000	1.04	1.1
4000	1.10	0.9

Noise Reduction Coefficient (NRC) = 0.95

Freq. = Octave band center frequency.

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

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

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

Soundproofing Products • Sonex™ Ceiling & Wall Panels • Sound Control Curtains • Equipment Enclosures • Acoustical Baffles & Banners • Solid Wood & Veneer Acoustical Ceiling & Wall Systems • Professional Audio Acoustics • Vibration & Damping Control • Fire Retardant Acoustics • Hearing Protection • Moisture & Impact Resistant Products • Floor Impact Noise Reduction • Sound Absorbers • Noise Barriers • Fabric Wrapped Wall Panels • Acoustical Foam (Egg Crate) • Acoustical Sealants & Adhesives • Outdoor Noise Control • Assistive Listening Devices • OSHA, FDA, ADA Compliance • On-Site Acoustical Analysis • Acoustical Design & Consulting • Large Inventory • Fast Shipment • No Project too Large or Small • Major Credit Cards Accepted