



# 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)

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



**Acoustic and Insulation Product  
Product Testing Laboratories**

Test Number C423\_090010

**ASTM C423 Sound Absorption**

<b>Brief Description:</b> 1" FG with Arcadia Vinyl 12.8% Open Ebony 3X21-99			
<b>Date:</b>	2/5/2009		
<b>Test Request:</b>	89330	<b>Tested By:</b>	Don Hill
<b>Measurement Procedure:</b>	Averaging algorithm is exponential.		<b>Notebook No.:</b> N/A
			<b>Page No.:</b> N/A
<b>Test Method:</b> The sample was tested in compliance with ASTM C423 and ASTM E795.			

**Test System:** Bruel & Kjaer Type 3560 SN: 2447687  
**Sound Source:** Delta Noise Generator creating Pink Noise

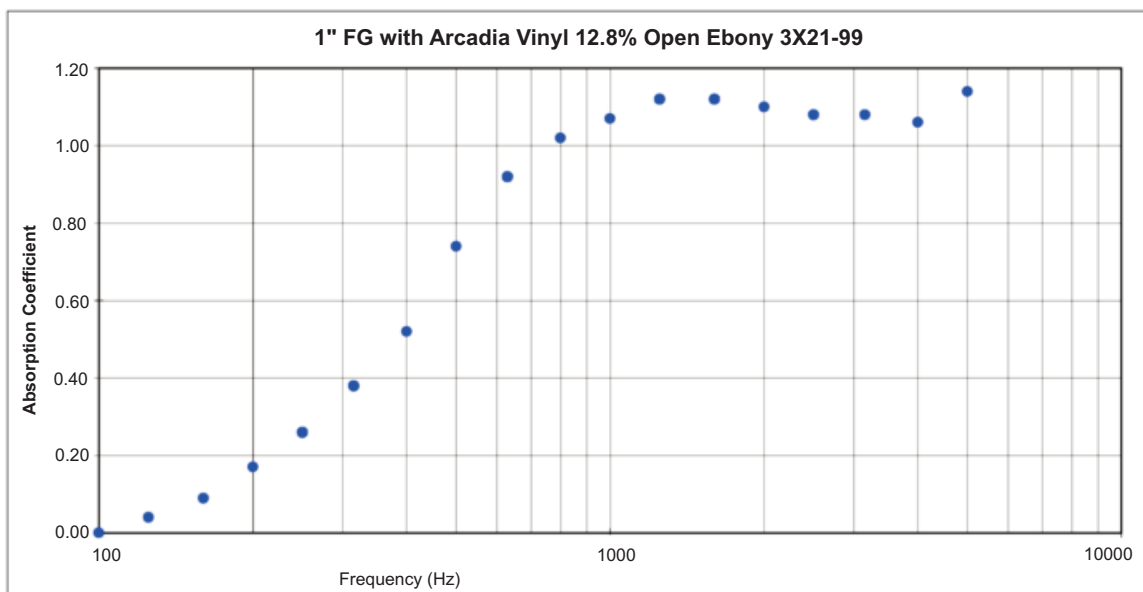
**Calibration Frequency:** 250 Hz  
**Type:** Pistonphone **Level:** 124.00 dB  
**Location:** Acoustics Lab B75 **Date:** 2/5/2009

**Summary of Test Results :**

Frequency (Hz)	Absorption Coefficient	Absorption (Metric Sabines)
100	0.00	0.02
125	0.04	0.29
160	0.09	0.60
200	0.17	1.13
250	0.26	1.77
315	0.38	2.53
400	0.52	3.49
500	0.74	4.99
630	0.92	6.15
800	1.02	6.86
1000	1.07	7.16
1250	1.12	7.52
1600	1.12	7.52
2000	1.10	7.39
2500	1.08	7.25
3150	1.08	7.26
4000	1.06	7.10
5000	1.14	7.64

	Empty Room	Full Room
Temperature (deg. C):	20.28	20.37
% Relative Humidity:	46.94	43.28
Date:	2/5/2009	2/5/2009
Atmospheric Pressure (kPa):	99	

<b>NRC</b>	<b>0.80</b>
<b>SAA</b>	<b>0.79</b>



Owens Corning Acoustic and Insulation Product Testing Laboratories  
 2790 Columbus Rd. Rt. 16 Granville, OH 43023-1200

- 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



# 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)

**We Identify and S.T.O.P. Your Noise Problem**



**Acoustic and Insulation Product  
 Product Testing Laboratories**

Test Number C423\_090010

**ASTM C423 Sound Absorption**

<b>Full Description:</b>	<b>Tested By:</b>	Don Hill	
Weight (kg):	18.40	Weight (lb):	40.56
Area (sq. m):	6.70	Area (sq. ft.):	72.17
Mounting:	Type D5 – Furring Strips		
Other Information:			

The purpose of this testing is to determine the sound absorptive properties of the submitted sample.

The test material is described as

1" FG with Arcadia Vinyl 12.8% Open Ebony 3X21-99

Each panel was characterized/measured in the Owens Corning Acoustic Research Center.

by Don Hill on 4-Feb-09

These measurements are documented below.

All measurements and calculations were conducted in accordance with Owens Corning Test Methods:

D-01Ae, Thickness

W-01Cb, Density and Square Foot Weight.

A standard tape measure was used to obtain the lengths and widths of each panel. The lengths provided here are an average of 2 measurements and the widths are an average of 3 measurements per panel. Per D-01Ae, the thickness measurements are an average of 5 measurements per panel.

The sum total area of the sample was	72.17 square (feet)					
	Lenght (in)	Width (in)	Thickness (in)	Weight (lbs)	Density (pcf)	Sq.ft.wt. (psf)
	108.12	96.12	1.01	40.56	6.68	0.56

Individual panel data available upon request.

All calculations and physical measurements include all components associated with this sample unless otherwise noted.

The sample was given 24 hours to come to equilibrium with the atmospheric conditions of the test chamber.

The panels were butted together to form a nominal 8 ft. x 9 ft. rectangular sample.

There were no interior gaps between any of the panels nor were there any gaps between the panels and the perimeter edge frame.

The perimeter edge of the sample was sealed with an ASTM approved aluminum frame.

The facing side of the sample was exposed to the sound field.

The sample was placed in the designated ASTM C423 position within the 10,110 cu.ft. reverberation chamber.

Details of this position may be obtained by request. All ASTM E795 mounting requirements were met for this test.

The source speakers were located in positions 1 and 2 (standard locations) within the reverberation chamber.

Details of this position may be obtained by request.

Owens Corning Acoustic and Insulation Product Testing Laboratories  
 2790 Columbus Rd. Rt. 16 Granville, OH 43023-1200

- 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