Materials to Control Sound and Eliminate Noise™

AcousticsFirst®
CORPORATION

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TecSpecs

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Pricing and product literature on-line: www.acousticsfirst.com/docs

DOC#2024.01.16

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Tips for Ordering:

1. ***Have your project specifications on hand.*** Questions may come up during processing and we can assist you better if we have a clear picture of your project and your needs.
2. ***Verify options and accessories.*** Some products have multiple options – size, thickness, color, fabric, density, accessories, etc… It can get confusing; **when in doubt… call us.**
3. ***Order early.*** Make sure you have everything you need, when you need it – install time! Some products – especially custom orders – have longer lead times, when in doubt…

call us NOW! (888) 765-2900

SONORA® WALL PANELS

CONSTRUCTION
High density (6-7 PCF) glass fiber panels covered with an acoustically transparent fabric. Chemically hardened edges.

Sizes: 2'x2' up to 4'x10'
(Custom Sizes available)

Thickness: 1", 2" (Standard)
3", 4" (Special Order)

Fabric Color: Guilford of Maine® FR701® 2100
or factory approved finish

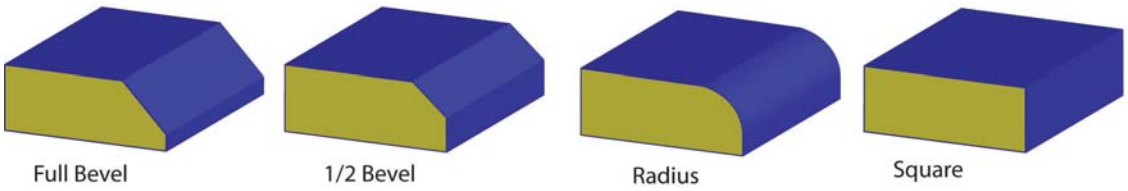
Mounting Options: Impaling clips, Z-clips

High Impact/Tackable facing is also available to improve durability and tackability. Other facings and fabrics are also available.

Ships Via: Common Carrier Motor Freight
Fire Rating: Class A

Applications:
- Houses of Worship
- Educational Facilities
- Home Entertainment Rooms
- Recording and Broadcast Studios

EDGE DESIGNS:



Sound Absorption Coefficients (Type A Mounting)								
Type	Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
6-7 PCF Panels	1"	0.09	0.27	0.80	1.01	1.03	1.01	0.80
	2"	0.45	0.82	1.17	1.08	1.05	1.09	1.05
	3"	0.75	1.11	1.19	1.07	1.06	1.09	1.10
	4"	0.95	1.04	1.14	1.09	1.07	1.09	1.10
Hi Impact	1-1/8"	0.10	0.43	0.92	1.04	1.00	1.00	0.85
Hi Impact	2-1/8"	0.55	0.95	1.16	1.04	1.05	1.07	1.05

SONORA® CEILING CLOUDS

CONSTRUCTION:
High density (6-7PCF) glass fiber core with faces and edges wrapped in fabric, available in 1" and 2" thicknesses.

Sizes: 2'x2', ,2'x4', 2'x6', 2'x8', 4'x4', 4'x5',4'x6'
Fabric: Guilford of Maine® FR701® 2100 or factory approved finish
Mounting: Suspended with cloud anchors.
Fire Rating: Class A

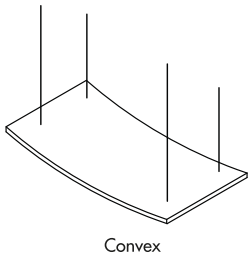
Suspended horizontally from the ceiling, Ceiling Clouds reduce reflected sound in large areas such as theaters, restaurants, arenas, shopping malls, convention centers or anywhere absorption is required.

SONORA® WAVE CLOUDS

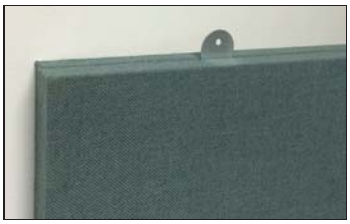
Construction:
1" thick high density (6-7PCF) glass fiber core with faces and edges wrapped in fabric. Curved, independently-hung clouds. Convex or concave. Custom sizes.

Thickness: 1" and 132" Radius
Size: Up to 4'x8'
Finish: Guilfor of Maine FR701-2100
Mounting: Suspended with cloud anchors.
Fire Rating: Class A

Sound Absorption in Sabins							
Size	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**NRC**
1"	17.59	25.11	42.46	53.29	61.38	59.81	**1.25**



SONORA® CEILING BAFFLES



CONSTRUCTION:
Two pieces of 7PCF glass fiber, back to back. Covered with fabric, Guilford of Maine FR701 2100.

Thickness: 2" **Common Sizes:** 2'x4', 2'x8'
Mounting: Vertical with Metal Tabs
Fire Rating: Class A

Sound Absorption - Sabins Per Unit 24"x48" (D-5 Mounting)						
Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
2"	4.48	8.00	13.20	17.93	16.98	16.35

SONORA® CEILING TILES

Sonora® Ceiling tiles are an elegant choice for a variety of ceiling grid applications requiring high absorption.

Construction:
One piece of 6-7 PCF noncombustible and dimensionally stable glass fiber core.

Thickness: 1”, 2”

Size: 2’ x 2’ (nominal), 2’ x 4’ (nominal)
Specify tile size when ordering.

Finish: Fabric - Guilford of Maine® FR701® Style 2100 or factory approved finish

Fire Rating: Class A

Sound Absorption Coefficient								
Thickness	Mounting	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1”	Type E400	0.58	0.91	0.78	1.01	1.05	1.13	0.95

SONORA® BLACK SCRIM CEILING TILES

Construction:
6-7 PCF Ecose® glass fiber core with high NRC rating.

Thickness: 1”, 2”

Size: 2’ x 2’ (nominal)

Finish: Black Scrim

Fire Rating: Class A

Sound Absorption Coefficients (Type E-400 Mounting)							
Size	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**NRC**
1”	0.78	1.07	.87	1.04	1.12	1.15	**1.05**

SONORA® ULTRAWHITE CEILING TILES

Construction:
6-7 PCF Ecose® glass fiber core with high NRC rating.

Thickness: 1”, 2”

Size: 2’ x 2’ (nominal)

Finish: UltraWHITE Fabric

Fire Rating: Class A

Sound Absorption Coefficients (Type E-400 Mounting)							
Size	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**NRC**
1”	0.74	.63	.60	.75	.82	.77	**.70**

SONORA® TEXTURED CEILING TILES

Construction:
6-7 PCF Ecose® glass fiber core with high NRC rating.

Thickness: 1”, 2”

Size: 2’ x 2’ (nominal)

Finish: Textured Fabric

Fire Rating: Class A

Sound Absorption Coefficients							
Size	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**NRC**
1”	0.75	.91	.70	.93	.98	1.03	**.90**

SONORA® PVC SEALED CEILING TILES

Construction:
6-7 PCF Ecose® glass fiber core with high NRC rating.

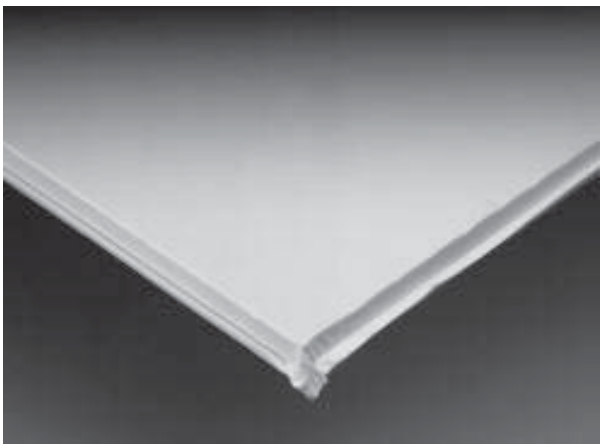
Thickness: 1”, 2”

Size: 2’ x 2’ (nominal)

Finish: 2.5 mil PVC Film – Easy to Clean!

Fire Rating: Class A

Sound Absorption Coefficients (Type E-380 Mounting)							
Size	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**NRC**
1”	0.75	.76	.72	1.03	.76	.38	**.80**



GEOMETRIX™ BROADBAND ABSORBER

Construction:
Fabric-Wrapped Broadband corner trap. Half or Quarter Round.

Size: Half (½) Round – 24" Diameter
Quarter (¼) Round – 12" Radius
Lengths: 48", 96" (Custom lengths available)
Fabric: Guiford of Maine® FR701 Style 2100
Mounting: Z-Clips
Fire Rating: Class A

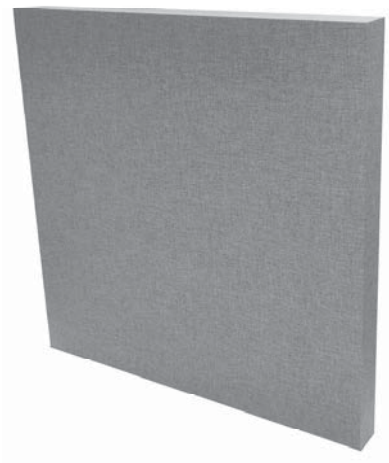
Sound Absorption Coefficient – Half Round						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1.54	1.40	1.35	1.31	1.32	1.27	1.35

SONORA® LFC (Low-Frequency Control) Panel

Construction:
Fabric-Wrapped Bass Trap. Multi-Density Fiberglass core with a reflective/resonant face. Tuned for bass.

Size: 4'x4'x $4^{1}/_{8}$" (Custom Sizes available)
Fabric: Guiford of Maine® FR701 Style 2100
Mounting: Z-Clips
Fire Rating: Class A
Bass Absorption: 1.08 @ 80 Hz & 0.92 @ 100 Hz

Sound Absorption Coefficient – 4'x4'						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
0.71	0.55	0.54	0.39	0.33	0.29	0.45



SONORA® CORNER BASS TRAP

Construction:
6-7 PCF fiberglass core with high NRC rating.
Thickness: 4"
Size: 24" x 48" or 18"x48" (Custom sizes available)
Finish: Guiford of Maine® FR701 Style 2100
Fire Rating: Class A

Performs as well or better than 4" Sonora® Wall Panel

SILENT PICTURES™ – SIGHT AND SOUND CONTROL

Silent Pictures™ combine full-color graphics with proven sound control materials to create a product that enhances room ambience, both acoustically and visually.

CONSTRUCTION:

Material: 6-7 PCF Glass Fiber Core
Edge: Square
Mounting: Impaling Clips, Z-Clips
Thickness: 1” (standard)
NRC: 0.80 (typical for one-inch panels)
Fire Rating: Class A

Silent Pictures™ are created from client owned (or licensed) print ready artwork. These graphics are then printed on acoustically compatible fabric and applied to sound absorbing acoustical substrate. Each request is customized to job specifications and can be quoted upon provision of project details.

Digital Art Specification:

Art Specifications:

- Customer to provide print-ready art in a high-resolution electronic format.
- Minimum resolution required is 300 dpi Tiff, EPS or High Resolution PDF. CMYK. Fonts embedded.
- Artwork will need to be the same size and shape as the panel face, plus an additional 4" of bleed area to allow for fabric edge and return wrap-around.

Applications:
Branding, Advertising & Marketing Nightclubs, Bars, Restaurants · School & College Auditoriums ·Theaters & Concert Halls · Home Theater & Home Decorating · Conference Rooms · Doctor & Dentist Offices · Teleconference Centers · Media Rooms · Hotel Lobbies and More!

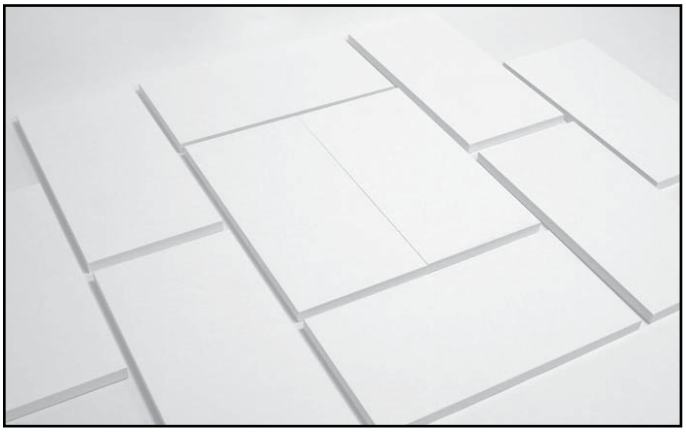
Sound Absorption Coefficient							
Size	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1"	0.18	0.37	0.94	1.16	1.20	1.09	0.90
2"	0.42	0.89	1.12	1.07	1.10	1.09	1.05

**Note: Acoustical performance for other thicknesses and applications will be comparable to the Sonora® Series when configured as wall panels, hanging baffles, ceiling clouds, and grid-mounting tiles.*

TONE TILES® PAINTABLE ACOUSTIC PANELS

The Acoustics First Tone Tiles® are white acoustical wall panels with a soft textured appearance. These panels can be customized in the field with painting or printing

Construction:
1"-2" Fiberglass 6 PCF acoustical core + paintable facing. Resin hardened square edges. Paintable finish covers face and exposed edges.



Panel Size: Up to 4'x10'

Thickness: 1", 2"

Fire Rating: Class A per ASTM E 84

NRC: 0.85 - 1.15

Mounting: Installs using standard impaling clip method. (adhesive by others)

Sustainability: This product bears the Green Cross label for recycled content. The acoustical substrate is certified on average to contain at least 35% recycled glass, with 9% post-consumer and 26% pre-consumer content.

In addition to reducing echo and reverberation, these acoustical panels are used to create *unique designs and patterns*. The glass fiber core is **faced with a paintable covering**. This allows you to match or complement existing wall colors by applying a light coat of flat or matte spray paint.

To customize the look even further, many local printing companies now have the capability to produce an image directly to the face of these panels.

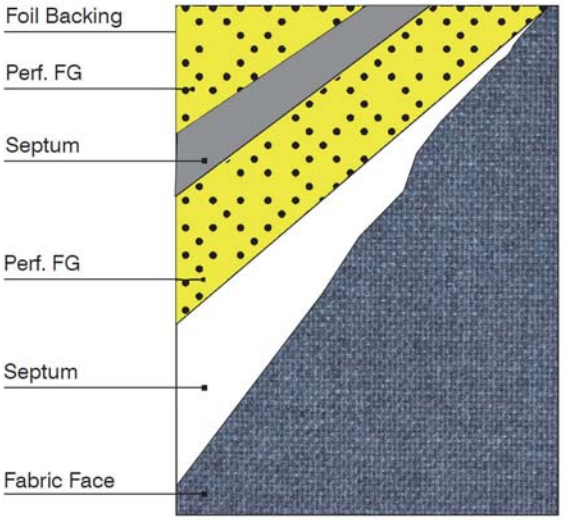
Applications:
Recording studios · Home Theaters · Offices · Broadcast Facilities · Telemedicine · Conference Rooms · Restaurants · Coffee Shops or anywhere sound absorption is desired.

Sound Absorption Coefficient							
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1"	0.19	0.44	0.93	1.09	1.08	1.08	0.85
2"	0.37	0.84	1.27	1.24	1.17	1.14	1.15

HiPer® PANEL – FLAT PANEL DIFFUSER

The HiPer® Panel is a patented acoustical panel that combines absorption and diffusion into one product. The device is similar in style to a standard fabric covered wall panel and can be intermixed with them.

Acoustical performance differs significantly from outward appearance. The patented internal structure uses two layers of absorption, separated by a barrier septum, to form a low-profile, composite absorber / diffuser product.



CONSTRUCTION:
Internally the panel substrates have a pattern of holes in two substrate layers, 180 degrees out-of-phase with each other and separated by a thin membrane creating an equal distribution of absorptive and reflective regions - both vertically and horizontally. There will also be additional cancellation at certain frequencies due to wave interference from phase shifting due to the time delay of passing through the various combinations of substrate and membrane and reflecting back through the panel.

Fabric Finish: Guilford of Maine® FR701® or factory approved finish
Edge Design: Square
Thickness: 1”, 2” 3”, 4” (Special Order)
Sizes: 2’x2’,2’x4’ (Custom up to 4’x10’)
Fire Rating: Class A

Applications:
- Houses of Worship
- Recording & Broadcast Studios
- Educational Facilities
- Home Entertainment Rooms

Sound Absorption Coefficient								
Thickness	Mounting	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1”	Type A	0.09	0.28	0.78	0.75	0.94	0.85	0.70
1”	Type E400	0.43	0.28	0.51	0.76	0.99	1.10	0.65
2”	Type A	0.23	0.83	0.78	1.01	0.90	0.78	0.90

**Note: Absorption data for the 3” and 4” HiPer Panels is available upon request.*

Random Incidence Sound Scattering						
ISO	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
17497-1	0.00	0.03	0.00	0.05	0.42	0.51

**Note: Polar Plots available upon request.*

US PATENT #7,314,114

CLOUDSCAPE® CEILING TILES

Cloudscape® Ceiling Tiles absorb and block sound transmission.

Five patterns available plus smooth face with no pattern.

Designed to fit into existing 24” x 24” ceiling grid systems.
May also be used with 24” x 48” ceiling grid by retrofitting grid with cross tees.

This product may also be ordered as a full 24” x 24” size, unbacked for adhesive mounting direct to walls or ceilings.

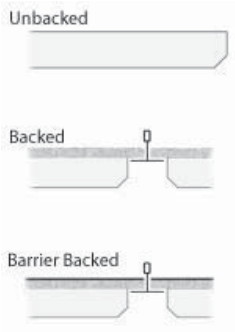
CONSTRUCTION:
Material: FireFlex™ Class 1 Melamine
Color: White
Size: 24” x 24” (nominal)
Specify grid mount when ordering.

Fire Rating: Class 1 (Melamine)

CONFIGURATIONS:

Unbacked:	1.5” Melamine Ceiling Tile
Backed:	1.5” Melamine + 0.5” Backer
Barrier Backed:	1.5” Melamine + 0.5” Backer + 1/8” Vinyl Barrier

NRC = 0.80
STC = 29 (Barrier Backed)



FireFlex™ Physical Characteristics
Material: Open Cell Melamine Foam
Density: 0.7 pounds/cubic foot
Tensile Strength: 8 PSA
Flammability: UL94V-0
Flame Spread: 10
Smoke Density: 50

Sound Absorption Coefficient (Type E Mounting)							
Config.	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Unbacked	0.26	0.60	0.64	0.93	0.97	0.93	0.80
Backed	0.22	0.44	0.85	0.95	0.97	0.95	0.80

CLOUDSCAPE® BAFFLES & BANNERS

Cloudscape® Baffles and Banners are designed to solve acoustical problems economically in any large cubic volume space such as arenas, gymnasiums, theaters, restaurants, and auditoriums. Reverberation times that range from 4 to 9 seconds can be reduced to 1/2 to 2 seconds. Speech intelligibility is greatly improved and sound intensity levels are reduced simultaneously by 3 to 12 decibels.

CLOUDSCAPE® ACOUSTICAL BAFFLES

Cloudscape® Baffles are easily suspended from ceilings, bar joists or pre-engineered suspension systems. They are designed to hang in a vertical fashion, allowing free flow of air and integrate exceptionally well with existing sprinklers, lighting and HVAC systems. Cloudscape® Baffles come in a variety of finishes to cater to any aesthetic needs.

Composition: Acoustical fiberglass fill, encapsulated in PVC covering.
Standard Colors: Black, White, Light Grey
Special order Colors: Red, Yellow, Blue, Green, Beige

Light Reflectivity: 0.10 to 0.80/ASTM C523-68
Fire Rating: Class A ASTM E84 25/0/50

Standard:	1.5 lbs./cu.ft.	**Size:** 1.5”x2’x4’ (Includes two grommets)
Custom:	2.0 lbs./cu.ft.	**Size:** 2”x Up to 4’x8’ in 2’ increments (Includes 3 grommets)

Sound Absorption: Sabins per 2’x4’ unit (Type J Mounting)							
Baffle Type	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Standard PVC	3.02	5.11	10.21	12.80	11.92	8.95	N/A
Custom PVC	2.43	5.49	10.64	12.23	8.01	4.74	N/A

CLOUDSCAPE® EXTERIOR BAFFLES

Composition: Acoustical fiberglass fill, encapsulated in exterior grade fabric.
Standard Colors: 19 Available Colors, See Color Chart.

Exterior:	1.65 lbs./cu.ft.	**Size:** 2”x Up to 4’x10’ in 2’ increments (Includes 3 grommets)

Sound Absorption: Sabins per 2’x4’ unit (Type J Mounting)							
Baffle Type	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Exterior	1.82	4.96	11.45	7.83	6.10	5.95	N/A

CLOUDSCAPE® SAILCLOTH BAFFLES

Composition: Acoustical fiberglass fill, encapsulated in durable Rip-Stop nylon

Standard Colors: 9 Available Colors, See Color Chart.

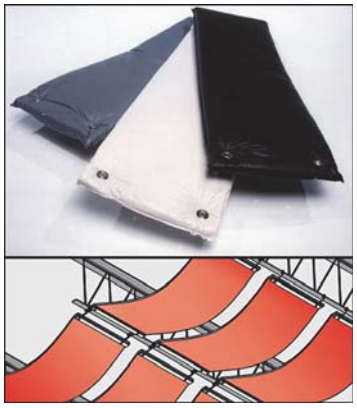
Fire Rating: Class A ASTM E84 25/0/50

Exterior:	1.65 lbs./cu.ft.	**Size:** 2"x Up to 4'x10' in 2' increments (Includes 3 grommets)

Sound Absorption: Sabins per 2'x4' unit (Type J Mounting)							
Baffle Type	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Fabric Wrapped	2.28	5.90	10.92	13.86	14.32	13.98	N/A
Sailcloth	2.29	5.43	10.82	13.58	13.44	12.83	N/A

**Note: Baffles wrapped in UltraWHITE fabric are also available, acoustic data can be provided upon request.*

CLOUDSCAPE® ACOUSTICAL BANNERS



Cloudscape® Banners are easily suspended from ceilings, bar joists or pre-engineered suspension systems. They are designed to hang in a horizontal or catenary fashion using washerplates or stiffeners every 8' in length. Festoon dimensions range from 30" to 72" max.

Size: 2" thick x 4' x (Custom Lengths)

Fire Rating: Class A - ASTM E84 25/0/50

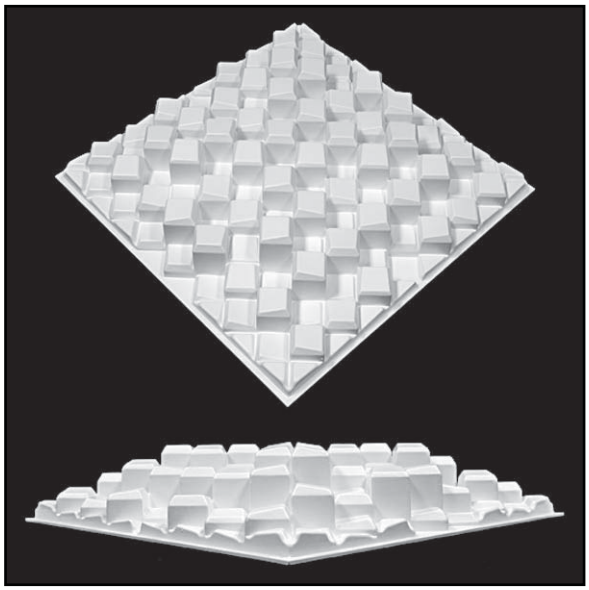
Composition: 0.75 lb. / cu. ft. Acoustical Fiberglass fill with PVC covering.*

Sound Absorption Coefficient - Type E400 Mounting						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
1.09	0.97	0.92	1.05	1.00	1.11	1.00

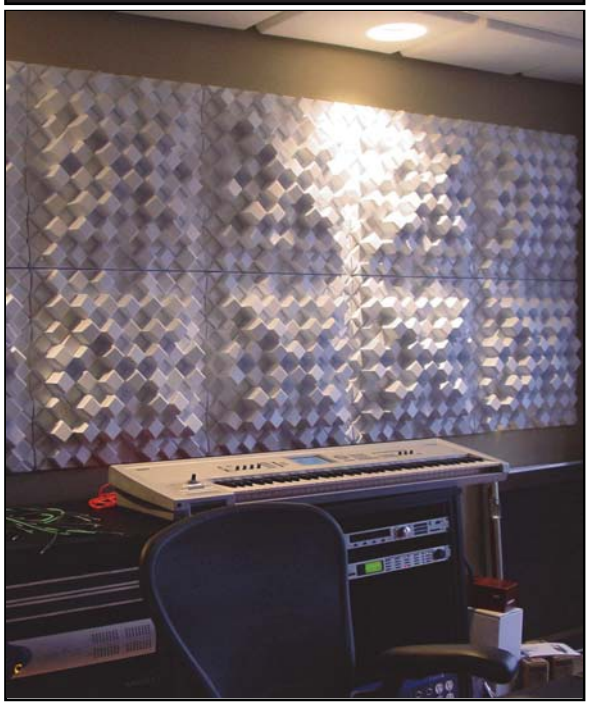
**Note: The standard configuration for banners doesn't have perforations, however banners with preforations on one or both sides are avaialable for special order.*

ART DIFFUSOR® MODEL C

The Art Diffusor® Model C is a patented, two dimensional, four octave, binary array diffuser. This diffuser improves sound clarity and ambience while increasing the overall perceived space of the room.



The range of the Model C is extended over other designs by its unique angled end caps to further control specular reflections above 4 kHz.
The Model C is paintable to match décor.



CONSTRUCTION:

Model C: 2 Dimensional / 4 Octave Diffuser

Size: 23-5/8 x 23-5/8”

Depth: 4.5”

Weight: 4 pounds

Mount: Direct mount (wall or ceiling) or Drop intoT-Bar grid (Specify)

Material: Thermoplastic (White) Boltaron Rigiwall® 4353

Bandwidth: 250 Hz to 16 kHz

Fire Rating: Class A

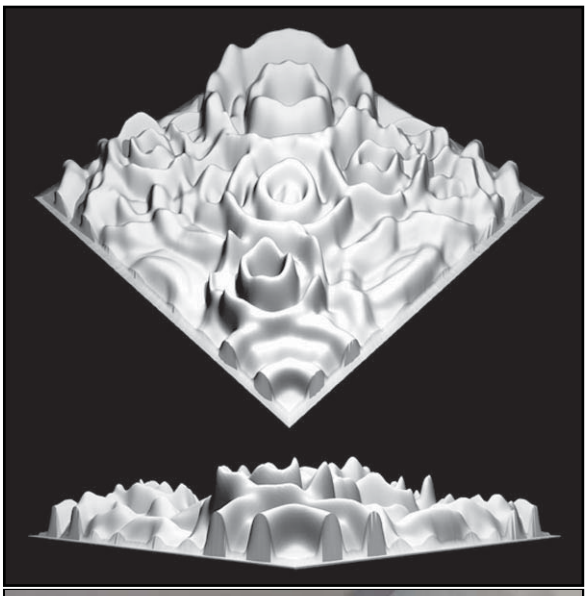
Applications: Recording & Broadcast Studios · Live Music Venues · Practice/Rehearsal Rooms · Theaters & Auditoriums · Houses of Worship · Home Entertainment Rooms & more!

Art Diffusor® – Model C Performance							
Test	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Type A	0.32	0.20	0.10	0.29	0.20	0.16	0.20
E400	0.20	0.12	0.12	0.31	0.23	0.22	0.20

*Diffusion data available upon request.

US PATENT #5160816

ART DIFFUSOR® MODEL D



The Art Diffusor® Model D is an organic quadratic diffuser. This diffuser improves sound clarity and ambience while providing an asymmetric diffusion pattern to help you tune your acoustic space.

The range of the Model D is extended over other designs by its unique organic curvature to further control specular reflections above 4 kHz.

A combination of QRD, Bicubic Interpolation, MLS and Boolean systems went into the design of the Model D. The Model D is paintable to match décor.

CONSTRUCTION:

Model D: Organic Quadratic Diffuser

Size: 23-5/8 x 23-5/8”

Depth: 4.1”

Weight: 4 pounds

Mount: Direct mount (wall or ceiling) or Drop into T-Bar grid

Material: Thermoplastic (White)

Bandwidth: 599 Hz to 16 kHz+ (Ext. Range)

Fire Rating: Class A

Applications: Recording & Broadcast Studios · Live Music Venues · Practice/Rehearsal Rooms · Theaters & Auditoriums · Houses of Worship · Home Entertainment Rooms & more!

Sound Absorption Coefficient: Art Diffusor® – Model D Performance							
Test	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Type A	0.23	0.08	0.05	0.19	0.20	0.11	0.15
E400	0.34	0.14	0.06	0.14	0.14	0.06	0.10

*Diffusion data available upon request.

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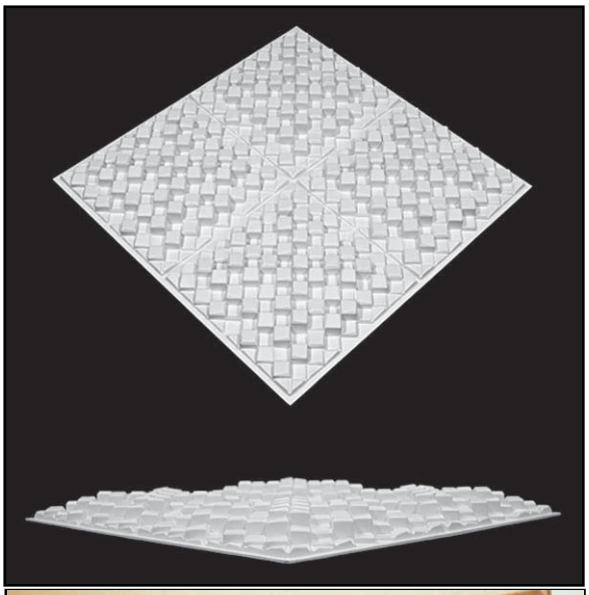
PATENTED (US D743,091)

ART DIFFUSOR® MODEL F



The Art Diffusor® Model F is a patented, two dimensional, binary array diffuser. This diffuser improves sound clarity and ambience while increasing the overall perceived space of the room.

The Model F reduces flutter echo and can be used in spaces where a low profile diffuser is required.

The range of the Model F is extended over other designs by its unique angled end caps to further control specular reflections above 4 kHz..
The Model F is paintable to match décor.

CONSTRUCTION:

Model F: 2 Dimensional / Low Profile Diffuser

Size: 23-5/8 x 23-5/8”

Depth: 2”

Weight: 4 pounds

Mount: Direct mount (wall or ceiling) or Drop into T-Bar grid

Material: Thermoplastic (White)

Bandwidth: 1 KHz to 16 kHz

Fire Rating: Class A

Applications: Recording & Broadcast Studios · Live Music Venues · Practice/Rehearsal Rooms · Theaters & Auditoriums · Houses of Worship · Home Entertainment Rooms & more!

Art Diffusor® – Model F Performance							
Test	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Type A	0.05	0.60	0.07	0.09	0.07	0.13	0.20
E400	0.20	0.10	0.06	0.05	0.06	0.14	0.05

*Diffusion data available upon request.

***US PATENT* #5160816**

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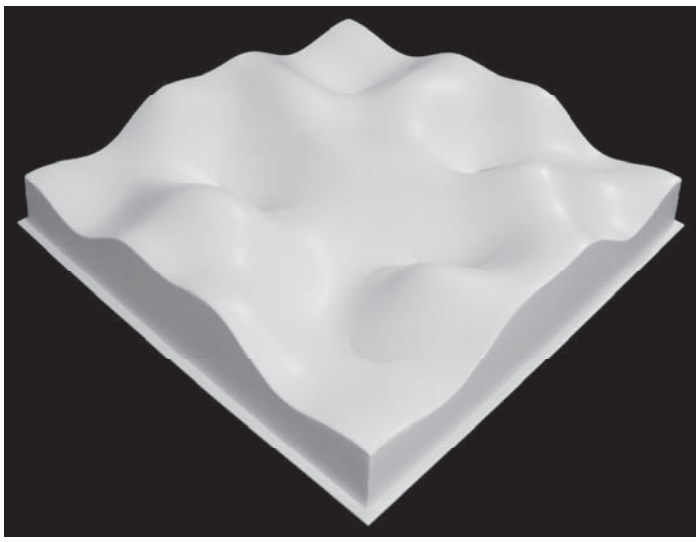
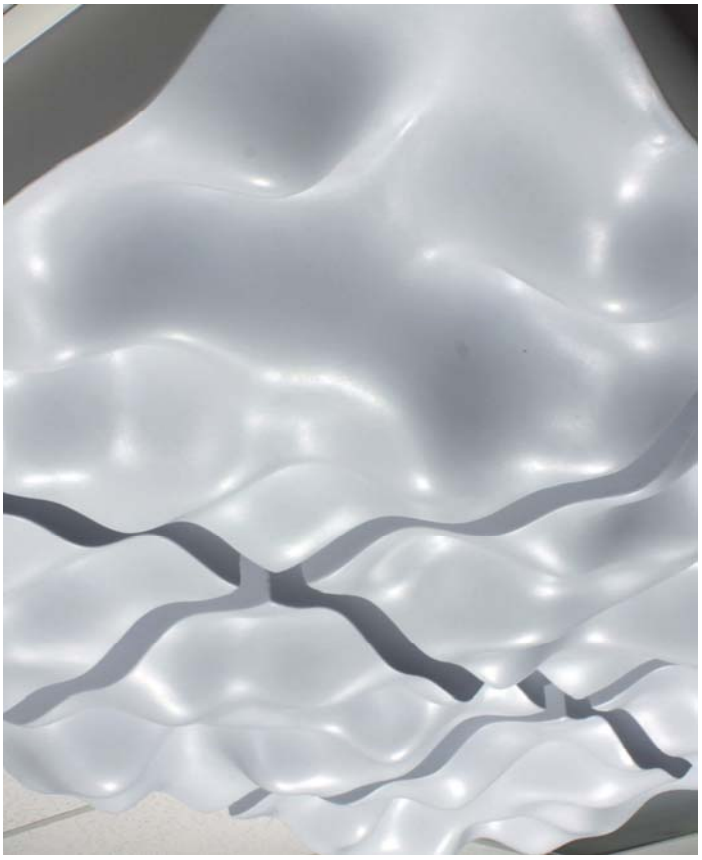
AEOLIAN™ SOUND DIFFUSER

Acoustics First™ Aeolian® Diffusers use a mix of technologies to create an organic quadratic diffuser. Similar to the Art Diffuser Model D mathematically, the Aeolian™ is a bicubic interpolation of a Prime Quadratic Diffuser, bridging the mathematical with the artistic. This combination creates a smoother frequency transition, wider operating range, and more forgiving diffusion pattern.



The Aeolian™ uses a unique design process that incorporates "implied symmetry" to defeat lobing problems. The entire diffuser is asymmetric, including the edges. Each edge is designed to vary in height by less than the width of the flange gap, creating an "implied symmetry, without actually being symmetric.



CONSTRUCTION:

Aeolian: 2 Dimensional Organic Quadratic

Size: 23 5/8” x 23 5/8”

Depth: 5”

Weight: 4 pound

Mount: Direct mount (wall or ceiling) or Drop in ceiling Grid.

Material: Thermoplastic (White)

Bandwidth: 1 kHz to 16 kHz

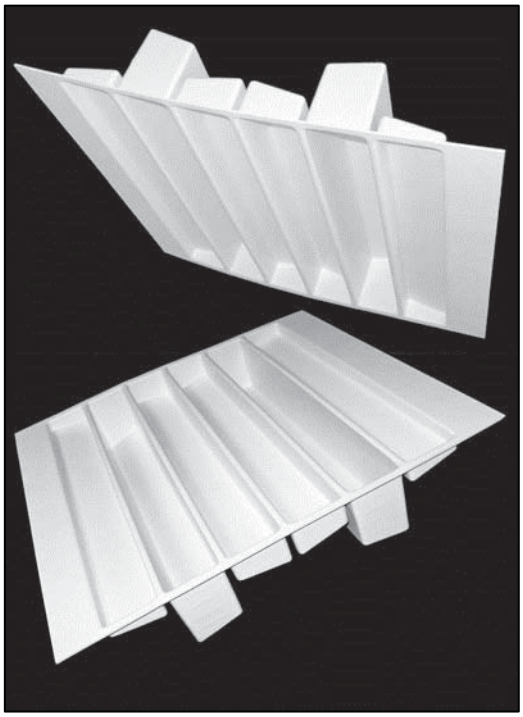
Fire Rating: ***Class A Material***

Application: Recording & Broadcast Studios
Practice/Rehearsal Rooms
Home Entertainment Rooms

Sound Absorption Coefficients – Aeolian Performance							
Mounting	**125 Hz**	**250 Hz**	**500 Hz**	**1000 Hz**	**2000 Hz**	**4000 Hz**	**NRC**
Type A Mount	0.55	0.24	0.22	0.16	0.10	0.13	0.20
E400 Mount	0.40	0.26	0.26	0.25	0.17	0.15	0.25
E400 w/Insulation	0.41	0.24	0.25	0.25	0.17	0.15	0.25

**Note: Diffusion data available upon request*

THE QUADRATIC DIFFUSER



Acoustics First® Quadratic Diffusers (Model Q) provide balanced sound throughout a performance space and help reduce excessive sound concentration or “hot spots”. A true Quadratic Residue Diffuser is designed so that the reflected sound waves are harmonically dissociated from the source waves and spread over time to create a more neutral listening space.

Borrowing a feature from the patented Art Diffusor® design, the well bottoms of the Acoustics First® Quadratics are angled at 10 – degrees to extend the unit’s range and scatter higher frequencies that would otherwise reflect in a straight line-of-sight path, back into the room.

CONSTRUCTION:

Model Q: 1 Dimensional / Quadratic Residue Diffuser
Size: 23-5/8 x 23-5/8”
Depth: 4”
Weight: 3.75 pounds
Mount: Drop into T-Bar grid or wall recessed.
Material: Thermoplastic (White)
Bandwidth: 600 Hz to 4 kHz
Fire Rating: Class 1 (A) per ASTM E84
NRC: 0.30

Installation:
Quadratic Diffuser Ceiling Panels may be installed into heavy-duty 15/16" face lay-in ceiling grid systems. They may be flush-mounted recessed, or installed on a wall surface with suitable surrounding trim.

Although it is a one-dimensional diffuser and produces a directional hemispheric polar response, the units may be oriented in any direction and, by alternating 90 degree rotation, will provide two-dimensional diffusion outside of the near field.

Applications: Recording & Broadcast Studios · Live Music Venues · Practice/Rehearsal Rooms · Theaters & Auditoriums · Houses of Worship · Home Entertainment Rooms & more!

The Quadratic Diffuser – Performance							
Test	125 Hz	250 Hz	500Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Type E400	0.35	0.40	0.45	0.30	0.14	0.19	0.30
Type E400 w/insulation	0.38	0.39	0.45	0.31	0.13	0.16	0.30

**Note: Diffusion data available upon request*

QUADRAPYRAMID™ DIFFUSER

The QuadraPyramid™ is a variation of the traditional offset pyramidal diffuser. It's patented low profile design presents four pyramids to create sixteen angles of reflection on the surface of a single 2' X 2' panel, with each pyramidal quadrant rotated 90 degrees.

The QuadraPyramid™ Diffuser generates a uniform polar response over a broad frequency range. There is very little sound absorption when used as a ceiling mounted device in a standard grid (NRC=0.10). When wall mounted in a specific manner, it becomes a mid-bass absorber in the range of 250 Hz (0.60 SAC) with the skirt of the bell curve extending down to 125 Hz on the low end and 315 Hz at its upper limit (NRC=0.20).

CONSTRUCTION:

Size: 23.75" x 23.75"

Depth: 2.75"

Weight: 4 pounds

Mount: Direct mount (wall or ceiling) or Drop into T-Bar grid

Material: Thermoplastic (White)

Fire Rating: Class 1 (A)

Applications: Recording & Broadcast Studios · Live Music Venues · Practice/Rehearsal Rooms · Theaters & Auditoriums · Houses of Worship · Home Entertainment Rooms & more!

Sound Absorption Coefficients							
Mounting	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
Type A	0.23	0.58	0.05	0.04	0.04	0.11	0.20
E400	0.28	0.17	0.09	0.07	0.10	0.14	0.10

**Note: Diffusion data available upon request.*

***US PATENTS* #D568529 & D581,090**

DOUBLE DUTY™ DIFFUSERS – FABRIC WRAPPED

Polycylindrical (barrel shaped) diffusers will act to scatter sound in any location. Bass absorption will vary with size. A 2’ X 4’ has maximum absorption at 125 Hz. Increasing size to 4’ X 8’ lowers the point of maximum absorption to 63 Hz. Mid to high frequency absorption is typically 0.10 to 0.25.

Construction: Class A Thermoformed plastic, covered in acoustically transparent, Guilford of Maine® FR701® Style 2100 fabric

Nominal Sizes: 2’x2’, 2’x4’, 4’x4’ and *4’x8’ (Molded Fiberglass only, not Thermoplastic). *Other sizes are available, please inquire for more information.*

Depth: 7”(Wall Diffusers)|| 5.375" (Ceiling)

Mounting: L-Bracket for direct mount to wall/ceiling – **OR** – Manufactured to fit into standard T-bar grids.

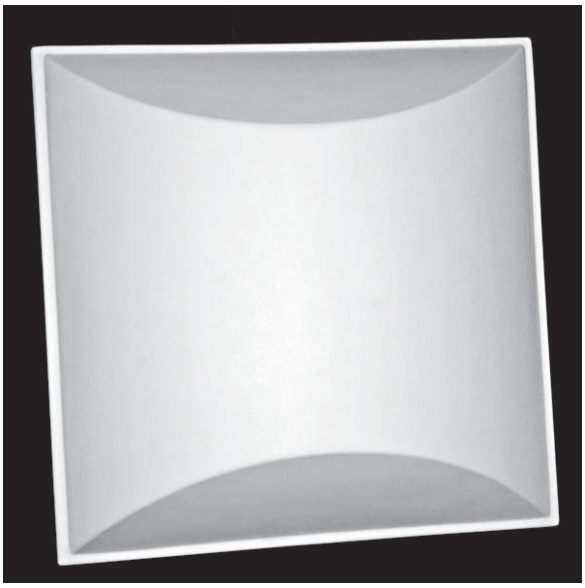
The internal cavity of the Double Duty Diffuser can be lined with a 1½” thick layer of glass fiber batting to increase absorption and prevent resonance (denoted “w/ insulation” in data table).

Sound Absorption Coefficients – Fabric Wrapped Double Duty Diffusor									
Size	Mounting	Weight	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	NRC
2'x2'	D-5	4.3lbs	0.50	0.19	0.22	0.18	0.22	0.24	0.20
2'x2'	E-400	4.3lbs	0.35	0.24	0.18	0.18	0.16	0.29	0.20
2'x2' w/insulation	D-5	5lbs	0.66	0.26	0.26	0.22	0.24	0.30	0.25
2'x2' w/insulation	E-400	5lbs	0.32	0.25	0.22	0.20	0.19	0.31	0.20
2'x4'	D-5	8.4lbs	0.40	0.26	0.19	0.19	0.21	0.21	0.20
2'x4'	E-400	8.4lbs	0.29	0.24	0.17	0.19	0.16	0.22	0.20
2'x4' w/insulation	D-5	9.7lbs	0.41	0.27	0.19	0.17	0.15	0.25	0.20
2'x4' w/insulation	E-400	9.7lbs	0.32	0.26	0.21	0.18	0.17	0.29	0.20
4'x4'	D-5	15lbs	0.27	0.22	0.10	0.09	0.14	0.19	0.15
4'x4'	E-400	15lbs	0.26	0.18	0.10	0.11	0.15	0.18	0.15
4'x4' w/insulation	D-5	17.5lbs	0.44	0.31	0.13	0.09	0.14	0.21	0.15
4'x4' w/insulation	E-400	17.5lbs	0.31	0.26	0.14	0.12	0.15	0.23	0.15
4'x8'	D-5	33.7lbs	0.22	0.16	0.08	0.07	0.13	0.14	0.10
4'x8'	E-400	33.7lbs	0.20	0.15	0.09	0.09	0.17	0.29	0.15
4'x8' w/insulation	D-5	39lbs	0.24	0.25	0.12	0.11	0.10	0.14	0.15
4'x8' w/insulation	E-400	39lbs	0.18	0.18	0.12	0.10	0.14	0.19	0.15

**Note: Diffusion data available upon request*

DOUBLE DUTY™ DIFFUSERS – STANDARD

Construction: Class A Thermoformed plastic with natural white finish.



Nominal Sizes: 2'x2', 2'x4', 4'x4' and *4'x8' (Molded Fiberglass only, not Thermoplastic). *Other sizes are available, please inquire for more information.*

Depth: 7"(Wall Diffusers)|| 5.375" (Ceiling)

Mounting: L-Bracket for direct mount to wall/ceiling – **OR** – Manufactured to fit into standard T-bar grids.

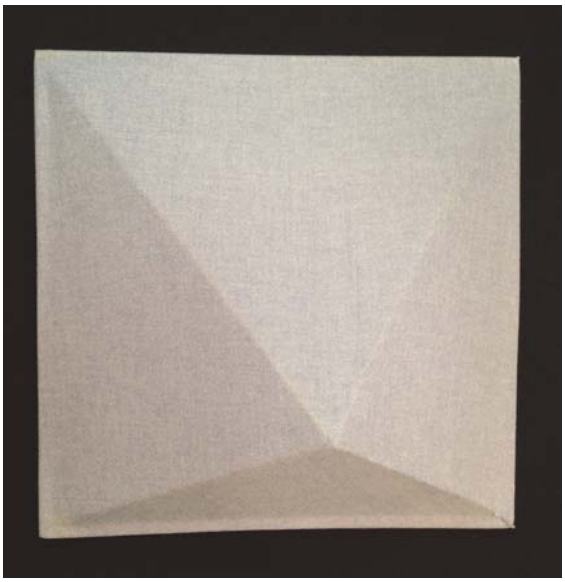
The internal cavity of the Double Duty Diffuser can be lined with a 1½" thick layer of glass fiber batting to increase absorption and prevent resonance (denoted "w/ insulation" in data table).

Sound Absorption Coefficients – Double Duty Diffusor									
Size	Mounting	Weight	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	NRC
2'x2'	D-5	4lbs	0.41	0.22	0.19	0.15	0.12	0.05	0.15
2'x2'	E-400	4lbs	0.33	0.27	0.19	0.15	0.11	0.11	0.20
2'x2' w/insulation	D-5	4.7lbs	0.64	0.28	0.26	0.18	0.11	0.15	0.20
2'x2' w/insulation	E-400	4.7lbs	0.33	0.24	0.21	0.16	0.10	0.15	0.20
2'x4'	D-5	7.9lbs	0.24	0.26	0.17	0.16	0.11	0.06	0.20
2'x4'	E-400	7.9lbs	0.25	0.23	0.16	0.17	0.09	0.12	0.15
2'x4' w/insulation	D-5	9.25lbs	0.41	0.27	0.19	0.16	0.07	0.12	0.15
2'x4' w/insulation	E-400	9.25lbs	0.38	0.27	0.20	0.19	0.09	0.15	0.20
4'x4'	D-5	13.2lbs	0.29	0.29	0.08	0.05	0.06	0.05	0.10
4'x4'	E-400	13.2lbs	0.30	0.23	0.09	0.08	0.06	0.08	0.10
4'x4' w/insulation	D-5	15.8lbs	0.43	0.39	0.14	0.06	0.06	0.08	0.15
4'x4' w/insulation	E-400	15.8lbs	0.38	0.32	0.14	0.09	0.09	0.12	0.15
4'x8'	D-5	31.2lbs	0.21	0.19	0.06	0.03	0.05	0.02	0.10
4'x8'	E-400	31.2lbs	0.19	0.13	0.07	0.06	0.07	0.05	0.10
4'x8' w/insulation	D-5	36.5lbs	0.34	0.3	0.12	0.08	0.02	0.01	0.15
4'x8' w/insulation	E-400	36.5lbs	0.19	0.18	0.12	0.07	0.07	0.07	0.10

**Note: Additional diffusion data available upon request*

PYRAMIDAL DIFFUSERS – FABRIC WRAPPED

Pyramidal diffusers quickly and easily eliminate floor to ceiling standing waves. They reduce flutter echo while maintaining a warm room sound. Molded in a one-piece pyramid shape, their offset apex provides four different angles of reflection.



Construction: Class A Thermoformed plastic, covered in acoustically transparent Guilford of Maine® FR701® Style 2100 fabric

Nominal Sizes: 2'x2', 4'x4' (2'x4' also available)

Depths: 8" - 13" (nominal)

Fire Rating: Class A

Mounting: L-Bracket for direct mount to wall/ceiling or manufactured to fit into standard T-bar grids

The internal cavity of the Pyramid Diffuser can be lined with a 1½" thick layer of glass fiber batting to increase absorption and prevent resonance (denoted "w/ insulation" in data table).

Sound Absorption Coefficients – Fabric Wrapped Pyramidal Diffuser									
Size	Mounting	Weight	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	NRC
2'x2'	D-5	3.75lbs	0.38	0.23	0.19	0.15	0.19	0.21	0.20
2'x2'	E-400	3.75lbs	0.30	0.25	0.18	0.15	0.17	0.22	0.20
2'x2' w/insulation	D-5	4.42lbs	0.63	0.35	0.32	0.22	0.21	0.28	0.30
2'x2' w/insulation	E-400	4.42lbs	0.36	0.27	0.22	0.16	0.18	0.30	0.20
4'x4'	D-5	12.6lbs	0.25	0.18	0.11	0.10	0.15	0.18	0.15
4'x4'	E-400	12.6lbs	0.17	0.16	0.13	0.12	0.15	0.22	0.15
4'x4' w/insulation	D-5	15.25lbs	0.29	0.35	0.23	0.15	0.17	0.23	0.25
4'x4' w/insulation	E-400	15.25lbs	0.26	0.21	0.18	0.14	0.16	0.27	0.15

**Note: Diffusion data available upon request*

PYRAMIDAL DIFFUSERS – STANDARD

Construction: Class A Thermoformed plastic with natural white finish

Mounting: L-Bracket for direct mount to wall/ceiling or manufactured to fit into standard T-bar grids

Nominal Sizes: 2'x2', 4'x4' (2'x4' also available)

Depths: 8" - 13" (nominal)

Fire Rating: Class A

The internal cavity of the Pyramid Diffuser can be lined with a 1½" thick layer of glass fiber batting to increase absorption and prevent resonance (denoted "w/ insulation" in data table).

Sound Absorption Coefficients – Pyramidal Diffuser									
Size	Mounting	Weight	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	NRC
2'x2'	D-5	3.58lbs	0.22	0.22	0.17	0.08	0.08	0.06	0.15
2'x2'	E-400	3.58lbs	0.24	0.22	0.16	0.11	0.10	0.11	0.15
2'x2' w/insulation	D-5	4.23lbs	0.57	0.41	0.38	0.21	0.16	0.16	0.30
2'x2' w/insulation	E-400	4.23lbs	0.35	0.28	0.23	0.14	0.11	0.16	0.20
4'x4'	D-5	11.3lbs	0.24	0.17	0.09	0.06	0.06	0.03	0.10
4'x4'	E-400	11.3lbs	0.16	0.17	0.11	0.08	0.09	0.10	0.10
4'x4' w/insulation	D-5	14lbs	0.41	0.43	0.23	0.12	0.07	0.01	0.20
4'x4' w/insulation	E-400	14lbs	0.27	0.24	0.19	0.12	0.09	0.14	0.15

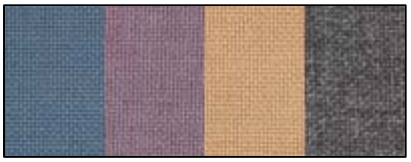
**Note: Diffusion data available upon request*

Grid Mount Pyramidal Diffuser

Direct Mount Pyramidal Diffuser

GUILFORD OF MAINE® ACOUSTICAL PANEL FABRIC

Guilford of Maine® - FR701 2100 (Standard Panel Fabric)



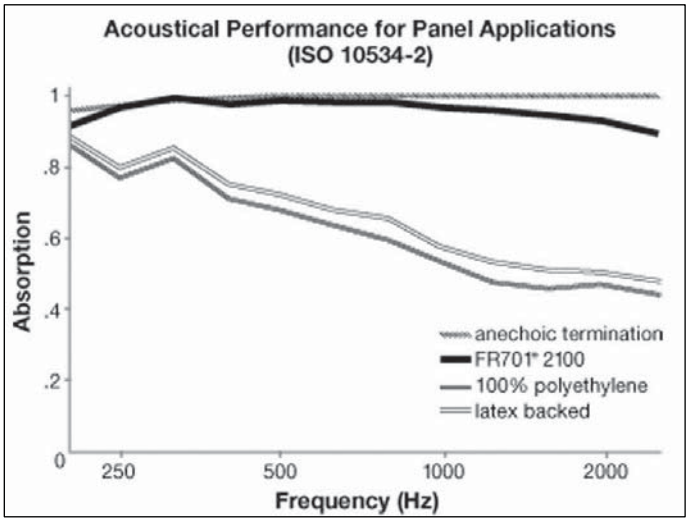
Select from over 50 different fabric choices in a wide variety of natural colors. The available color spectrum, from tans and grays to other vibrant or muted hues, allows for a multitude of design possibilities. This fabric is acoustically transparent and can be used to cover acoustical panels, used as speaker grill cloth or with stretch wall applications.

Roll Width: 66" minimum useable

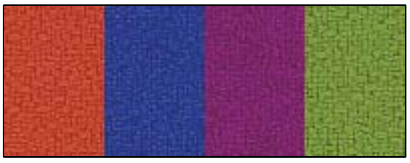
Content: 100% Post-Consumer Recycled Polyester (*LEED Information*) Manufactured in USA

Acoustical Performance: ASTM C423-90a - The net change in Noise Reduction Coefficient (NRC) when an acoustical panel core is covered with FR701® ranges from NRC 0.00 to 0.05.

Flammability: ASTM E84 Class A or 1



Guilford of Maine® - Anchorage 2335



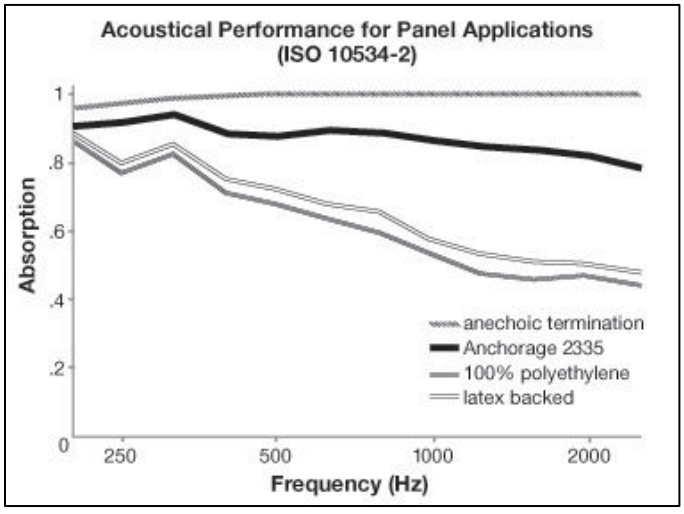
Choose from 35 vibrant colors from "Sunshine" to "Green Apple" to add brilliant color to your acoustic installations. Fabrics may be cleaned with mild, water-free solvents or water-based cleaning agents.

Roll Width: 66" useable

Content: 100% Recycled Polyester (80% Pre-consumer, 20% Post-Consumer) Manufactured in the USA

Acoustical Performance: ASTM C423-90a - The net change in Noise Reduction Coefficient (NRC) when an acoustical panel core is covered with FR701® ranges from NRC 0.05 to 0.20

Flammability: ASTM E84 Class A or 1; State of CA Technical Bulletin 117 Sec E - Passes



SOUND CHANNELS®

ACOUSTICAL FABRICS FOR VERTICAL SURFACES

Sound Channels® dimensional fabric offers excellent acoustical properties, unmatched fade resistance, and a fire/smoke rating of Class A.

With the aesthetic appearance of wall carpet, it is lightweight and easy to install. Sound Channels® fabric is resistant to moisture, mildew, rot, bacteria, and is non-allergenic.

FLAMMABILITY SPECIFICATIONS

Passes Corner burn = NFPA 265, UBC 8-2 (formerly UBC 42-2)

Meets Class A Flame Spread Rating in accordance with ASTM E-84

SOUND CHANNELS® - CONSTRUCTION

Roll Size:	54” (w) x 33 Linear yards
Weight:	23 Ounces / Linear yard
Pile Height:	0.20”+/- 0.010”
Backing:	Fusible Clear Latex
Tear Strength:	23 lbs. minimum in both warp and fill direction per ASTM D-2261
Tensile Strength:	100 lbs. minimum in both warp and fill direction per ASTM D-1682

Sound Channels - Sound Absorption Coefficients						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
0.01	0.07	0.13	0.25	0.32	0.43	0.20
Note: Measurements are for fabric alone applied to ½” Gypsum Board.						

Long Wearing
Low Static Properties
Easy to clean
Velcro Compatible

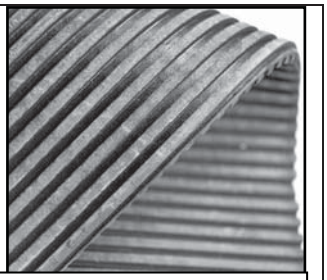
Samples available upon request.

Partitions
Panels
Wall coverings
Exhibits
Displays

VIBRATION CONTROL

VIB-X

VIB-X Pad absorbs vibration energy and thus prevents the transmission of shock or vibration from one surface to another surface. VIB-X Pad may be used to mount noisy machinery or to attach an independent 'floating' stud wall for room-within-a-room isolation. The cross-ribbed construction acts as an efficient energy absorber, enabling large horizontal forces to be generated without slippage or "walking" occurring.



Size: 24"x24" x 5/16"
Material: DuPont Neoprene elastomer sheet
45 durometer pad - 1/16" deflection 50 psi
65 durometer pad - 1/16" deflection 150 psi

- Reduces structure borne acoustic noise
- Decouples machinery vibration from structure
- Floats sound studio and theater walls
- Easy to cut to size with common tools

VIB DAMP

Vibrating surfaces are often damped, by applying visco-elastic materials directly to the surface converting the vibrational energy to heat. The flexing of the damping material provides the energy dissipation and "decay" to reduce noise. Metal no longer "rings" when it is struck or excited by airborne noise.

Color: Light beige, non-reflective stipple finish
Density: 85.3 lb./cu. ft. (wet), 72.9 lb./cu. ft. (dry),
350 pentrometer viscosity at 80 deg.F. Sprayable loose Paste.

ISOHANGERS

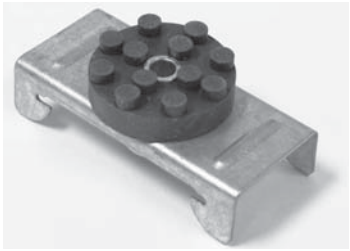
IsoHangers are used to absorb vibration energy to help prevent the structural transmission of sound. These can be used to hang speaker boxes, ceilings and ceiling grids, air ducts and piping.

Available
Max Loads:
65 lbs.
120 lbs.
200 lbs.

Construction: 11 gauge cold drawn steel wire, zinc plated to prevent corrosion, rubber collar to prevent metal to metal contact. Clearance for 3/16" diameter rod.

RESILIENT CLIPS

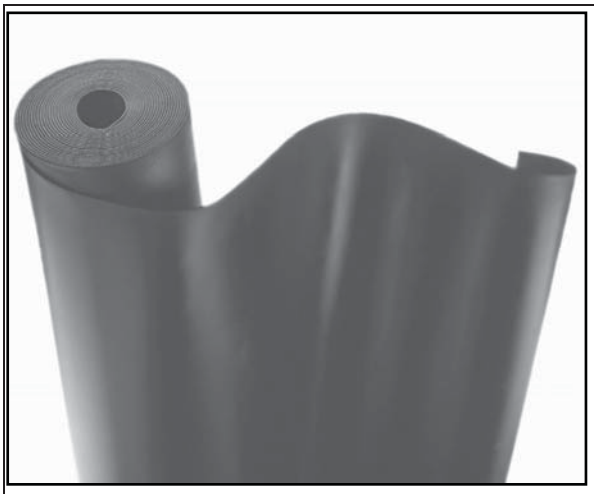
Improve sound transmission loss, reduce impact noise and structural noise transmission in most ceiling and wall constructions. Resilient clips are used to isolate using standard furring channels (hat track) when mounting gypsum board, drywall, or sheetrock.
Clips eliminate the need for RC-1 and other acoustical mats.
Can improve STC up to 20 points.



FLOOR UNDERLAYMENT(Closed-Cell)

Underlayment provides floor isolation to prevent sound transmission, structural noise transmission and impact noise.
Construction: Flexible non-lead loaded solid mass barrier fusion-bonded to 1/4" 8 - 10 lbs density closed-cell PVC foam decoupler.
Temp. Range: -40°F - 255°F
Roll Size: 54"(w) **Weight:** 1.25 lb. /sq. ft. **STC:** 27

BLOCKAID® VINYL SOUND BARRIER



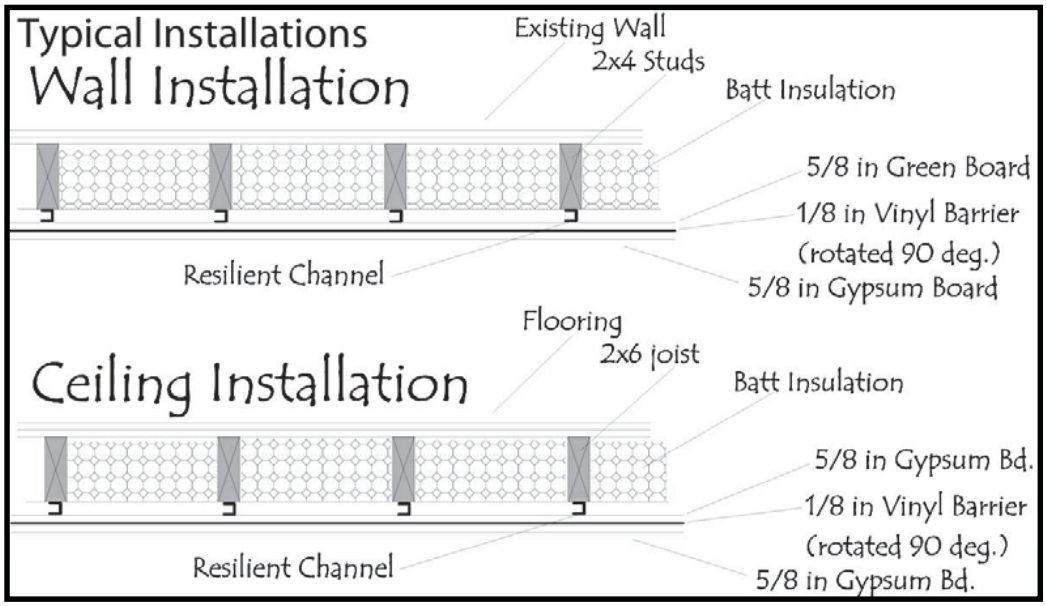
BlockAid® sound barrier is a high-density limp-mass material constructed of non-reinforced high temperature fused vinyl with no lead fillers.

Designed to block transmission of sound through walls, floors and ceilings. It is also effective as a pipe and duct wrap to dampen vibrations and reduce noise.

60' rolls ship Via Common Carrier Motor Freight. 30' and 20' rolls may ship by UPS/FedEx ground service.

Vinyl sound barrier is tough and durable.

Width:	54" wide
Size:	20', 30' and 60' rolls
Weight:	1 lb. per sq. ft.
Thickness:	1/8"
Fire Rating:	Self-Extinguishing
STC:	26



COMPOSITE FOAM

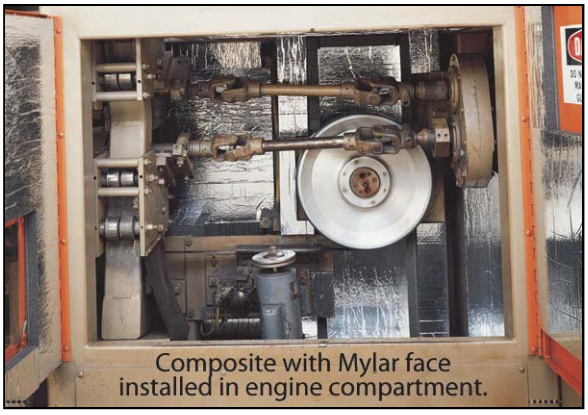
These products are used for applications where increased noise absorption, sound transmission loss and/or vibration damping is needed.

CONSTRUCTION:
Composites combine vinyl sound barrier, acoustical foam (either Polyurethane or FireFlex™ Class 1 Melamine) and a 1/4" foam decoupler.

SIZE: 24" x 48"

THICKNESS:
1" foam + 0.125" barrier + 0.250" foam decoupler

COLOR: CHARCOAL (If Polyurethane foam)
LIGHT GREY (If FireFlex™ foam)

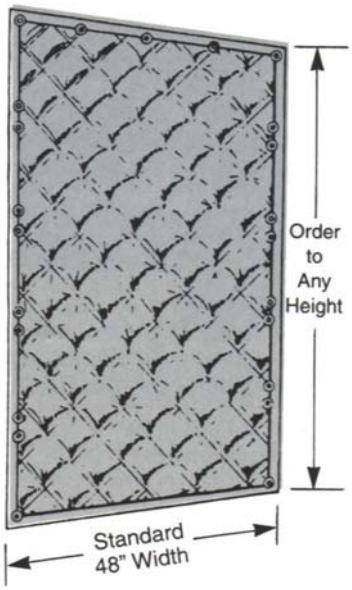

Composite with Mylar face installed in engine compartment.

ITEM DESCRIPTIONS:

ATP1 -	Foam only with TUFTANE face and Peel & Stick Backing
AMP1 -	Foam only with aluminized MYLAR FACE and Peel & Stick Backing
ABF1 -	Foam/Barrier/Foam (No film face - no Peel & Stick Backing)
ABF1-P -	Foam/Barrier/Foam with Peel & Stick Backing (No film face)
ABF1-M -	Foam/Barrier/Foam with MYLAR face (no Peel & Stick Backing)
ABF1-MP -	Foam/Barrier/Foam with MYLAR face and Peel & Stick Backing
ABF1-T -	Foam/Barrier/Foam with TUFTANE face (no Peel & Stick Backing)
ABF1-TP -	Foam/Barrier/Foam with TUFTANE face and Peel & Stick Backing)
ABF1X -	FIREFLEX Flat Foam/Barrier/Foam (No film face - no Peel & Stick Backing)
ABF1X-MINI -	FIREFLEX MINI WEDGE Foam/Barrier/Foam (No film face - no PSA)

Sound Absorption Coefficients (Foam/Barrier/Foam)						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
0.33	0.24	0.63	1.23	1.35	1.14	0.85
Sound Transmission Loss (Foam/Barrier/Foam)						
125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	STC
20	21	25	28	32	42	29

STRATIQUILT™ – Quilted Fiberglass



StratiQuilt™ rolls and panels combine noise barrier performance with efficient sound absorption. This light-weight, semi-flexible, easy-to-handle material is a vinyl coated, fiberglass facing cloth, quilted to a supporting 2 lb./cu. ft. density fiberglass.

As a semi-flexible barrier enclosure, StratiQuilt's absorptive properties help to control reverberant energy inside an area. StratiQuilt™ does not accordion fold, therefore it should be considered as a suspended barrier in areas requiring infrequent access.

CONSTRUCTION:
StratiQuilt™ Panels are quilted in a 4" diamond shape, and are fully bound on all edges so no fiberglass is exposed.

SQ122 - Facing on one side. Standard grommets are on the top 48" edge only.
SQ124 - is constructed of two layers of SQ122 bound back-to-back.
SQ125 - is similar to SQ124—with 1.0 lb./sq. ft. loaded vinyl barrier septum added.

All Stratiquilt™ panels have standard brass grommets 12" O.C. on top hanging side. In addition, SQ124 and SQ125 have double-grommet fastening system on edges. Nylon thread is used exclusively for all hems.

Prefabricated Panels:
Width: 48" maximum
Standard Length: 6', 8', 10'
(Custom Lengths Available)

Flame Resistance: Class 1

Resists oils, grease, moisture, mild acids and alkalies, dirt, dust, and salt atmospheres. Facing can be steam cleaned or washed with common industrial cleaners.

StratiQuilt™ is available in 1" or 2" thick rolls, faced one or both sides. Other configurations are available.

PART#	Wt. Sq. Ft.	Thickness	Blanket Configuration & Diagram		STC	NRC
SQ122	0.25 lb.	1"	Facing – One Side		n/a	0.70
SQ124	0.50 lb.	2"	Facing – Both Sides		n/a	0.85
SQ125	1.50 lb.	2"	Facing Both w/ Barrier		29	0.70

FIREFLEX™ (CLASS 1) FOAM

FireFlex™ is the Class 1 alternative to traditional acoustical foams. These materials are constructed of lightweight, porous acoustic melamine. Internal structure is a cellular complex of slim, flexible webs, which are completely open-celled.

FireFlex™ products are uniquely suited for environments where temperatures are high or sparks may fly. It withstands constant temperatures up to 320 degrees F, and meets all Class 1 regulations for flame spread, smoke density and fuel contribution.

Colors: Light Grey (Standard)
White (Special Order)

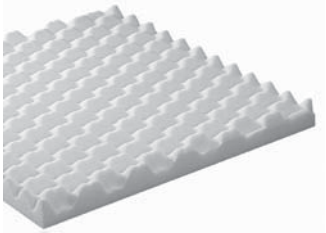
Sound Absorption Coefficients							
Size	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**NRC**
Pyramid Pattern							
2”	0.09	0.28	0.79	0.94	1.00	1.04	**0.75**
3”	0.10	0.48	0.91	1.11	1.11	1.14	**0.90**
4”	0.16	0.56	1.11	1.13	1.13	1.21	**1.00**
Wedge Pattern							
2”	0.03	0.31	0.81	1.02	1.01	0.96	**0.80**
3”	0.13	0.74	1.26	1.18	1.12	1.03	**1.10**
4”	0.33	1.12	1.32	1.39	1.19	1.12	**1.25**
Max Wedge							
6”	0.22	1.07	1.27	1.34	1.27	1.15	**1.25**
8”	0.39	1.05	1.44	1.38	1.33	1.19	**1.30**
FireFlex WAVE (Sabins per Unit)							
Cloud	1.98	4.41	10.91	15.57	16.55	16.80	**N/A**
Baffle	1.22	3.86	9.94	14.34	15.10	14.22	**N/A**

Fire Rating: Class 1 (A)

FireFlex™ Physical Characteristics:
Material: Open Cell Melamine Foam
Density: 0.7 pounds/cubic foot
Flammability: UL94V-0
Flame Spread = 10
Smoke Density = 50
Tensile Strength= 8 PSA

WEDGE

Wedge installs easily to handle the toughest noise problems.

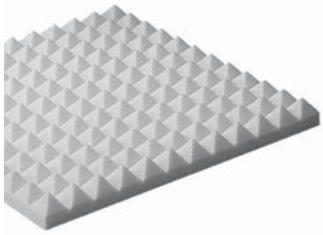


Thickness:
1.5”,2”,3”,4”

Size: 2’ x 4’

PYRAMID

The pyramid pattern allows for a uniform appearance when installed.

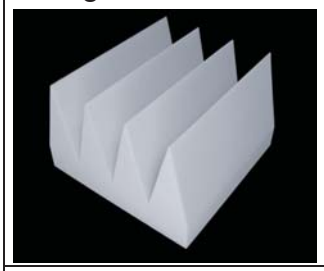


Thickness:
2”,3”,4”

Size: 2’ x 2’

MAX WEDGE

Designed for controlling low frequency sound.



Thickness:
6”,8” (4” available upon request)

Size: 1’ x 1’

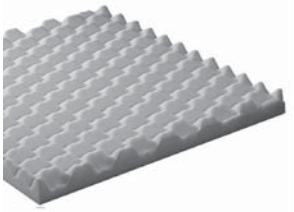
FIREFLEX™ WAVE

Hanging Waves are ideal for high noise interior environments. The undulating design can be installed vertically or horizontally with provided hardware. **Thickness:** 2” **Size:** 2’ x 4’

TRADITIONAL ACOUSTICAL FOAM

WEDGE

Wedge installs easily to handle the toughest noise problems.

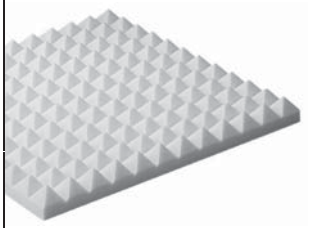


Thickness:
1.5",2",3",4"

Size: 2' x 4'

PYRAMID

The pyramid pattern allows for a uniform appearance when installed.



Thickness:
2",3",4"

Size: 2' x 2'

MAX WEDGE

Designed for controlling low frequency sound.

Thickness:
6",8" (4" available upon request)

Size: 1' x 1'

NOTE: This product contains a chemical known to the State of California to cause cancer.

Still an industry work horse for recording and broadcast studios, our traditional acoustical foam absorbers are constructed from 2 pound per cubic foot density, open cell acoustical foam. This material is cut into various patterns, shapes and sizes.

Please keep in mind that traditional acoustical foam is not a Class A product and therefore is not suitable for most public buildings. As always, we also offer a full line of Class 1(A) acoustical foam products (see page 24).

Charcoal Only.

Sound Absorption Coefficients							
Size	**125Hz**	**250Hz**	**500Hz**	**1KHz**	**2KHz**	**4KHz**	**NRC**
Pyramid Pattern							
2"	0.14	0.32	0.72	1.01	1.05	1.08	**0.80**
3"	0.44	0.48	1.19	1.12	1.16	1.16	**1.00**
4"	0.39	0.60	1.21	1.14	1.16	1.13	**1.05**
Wedge Pattern							
2"	0.15	0.31	0.73	1.04	1.08	1.12	**0.80**
3"	0.24	0.46	1.08	1.05	0.98	0.90	**0.90**
4"	0.32	0.93	1.43	1.33	1.29	1.21	**1.25**
Max Wedge (8" 'A' Mount – 6" 'D' Mount)							
8"(A)	0.27	1.05	1.34	1.28	1.26	1.17	**1.25**
6"(D)	0.41	1.05	1.42	1.36	1.37	1.51	**1.30**

Applications:
- Prevent destructive specular reflections.
- Eliminate room modes, comb filtering, standing waves and undesirable specular artifacts.
- Attenuate sound pressure buildup in rooms

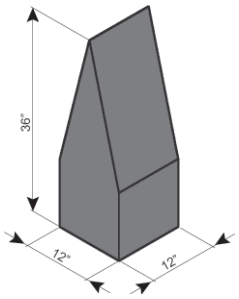
Physical Characteristics:
Material: Open Cell Polyurethane Foam
Density: 2 pounds per cubic foot
Flammability: Meets UL94HF-1
Flame Spread= 95
Smoke Density= 340
Tensile Strength= 20

Note: This material does not meet the requirements for a Class 1 (A) Fire Rating.

*

SPECIALTY ACOUSTICAL FOAM

ANECHOIC WEDGES
FOR TEST CHAMBERS



Custom made anechoic foam wedges are used in a wide variety of acoustic applications.

Custom wedges are manufactured from a two pound per cubic foot open cell polyurethane foam and are quoted on a per job basis. Please provide drawings, measurements & quantities when requesting a quotation.

SOUND CYLINDER™

Free standing foam sound absorbers designed to fit on a typical studio microphone stand. Several can be used to create a vocal booth or mix area.

Size: 10” diameter x 48” high

BERMUDA TRIANGLE TRAP™

Triangular broadband absorbers designed for mounting in room corners. The rolling pattern front provides increased surface area for more sound absorption.

Size: 12” corner edges
17” across face
Heights: 24” or 48”

Corner connector cubes are available to connect Bermudas at the ceiling and wall intersections.

Sound Absorption Properties (Sabins per Unit)						
	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz
Bermuda Triangle Trap	20.0	26.4	26.7	28.5	35.7	49.3
Sound Cylinder	20.6	25.0	26.2	27.6	35.1	48.8

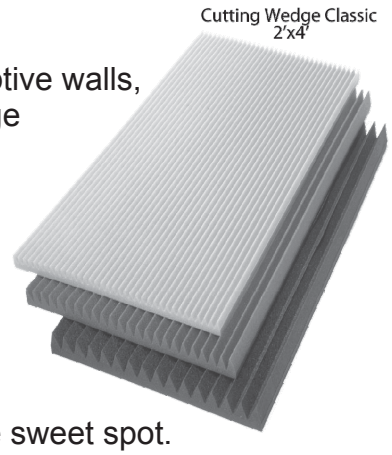
Color: Charcoal.

Polyurethane Physical Characteristics:
Material: Open Cell Polyurethane Foam
Density: 2 pounds per cubic foot
Flammability: Meets UL94HF-1
Flame Spread= 95
Smoke Density= 340
Tensile Strength= 20

Note: This material does not meet the requirements for a Class 1 (A) Fire Rating.

*NOTE: This product contains a chemical known to the State of California to cause cancer.

CUTTING WEDGE® FOAM



Cutting Wedge® can be installed to create absolutely seamless absorptive walls, and enhance imaging by reducing unwanted reflections. Cutting Wedge can be used to simply and efficiently to minimize reverb and create premium environments for recording voiceovers, vocals, and more.

- Prevent destructive specular reflections from distorting or coloring the sweet spot.
- Eliminate room modes, comb filtering, standing waves and undesirable specular artifacts.
- Attenuate sound pressure buildup at room boundaries (where walls meet walls.)

SIZES:
CW Classic: 2",3", 4", & 6" thicknesses, as 1' x 1' squares and 2' x 4' sheets

Color: Charcoal.

Material: Open Cell Polyurethane Foam
Density: 2 pounds per cubic foot

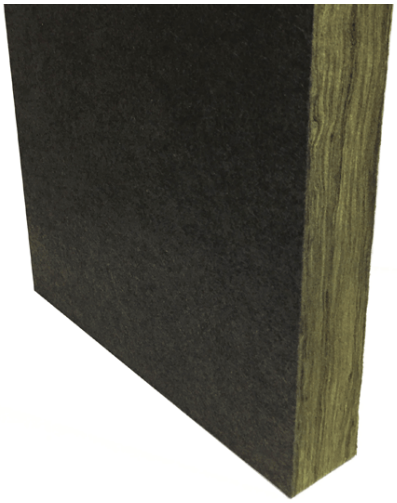
Flammability: Meets UL94HF-1
Flame Spread= 95
Smoke Density= 340
Tensile Strength= 20
(Note: This is not a Class A Fire Rating.)
Can be installed using a construction adhesive that is approved for foam.

Sound Absorption Coefficient							
Cutting Wedge® Classic							
Size	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	NRC
2"	0.24	0.31	0.69	0.94	0.95	0.96	0.70
3"	0.24	0.58	0.67	0.91	0.96	0.99	0.80
4"	0.33	0.90	0.84	0.99	0.98	0.99	0.95
6"	0.52	1.12	0.88	1.05	1.06	1.02	1.05

*NOTE: This product contains a chemical known to the State of California to cause cancer.

SONORA® BLACK ACOUSTIC BOARD

Construction:
1" or 2" thick 3 PCF or 6-7 PCF Ecose® glass fiber core with black matte scrim facing
Size: 4’ x 8’
Mounting: Adhesive, Washer Plate, Impaling clips, Z-Clips.
Finish: Black Scrim Fabric
Fire Rating: Class A



Sound Absorption Coefficients (3 PCF Ecose® Board)							
Size	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	NRC
1”	0.13	.24	.56	.83	.93	.98	**.65**
2”	0.33	.67	1.08	1.07	1.03	1.06	**.95**

Sound Absorption Coefficients (6-7 PCF Ecose® Board)							
Size	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	NRC
1”	0.80	.96	.79	1.00	1.06	1.08	**.95**
2”	0.39	.63	1.06	1.13	1.09	1.10	**1.00**

SONORA® BLACK ACOUSTIC BLANKET

Construction:
1.5 PCF Ecose® glass fiber core with black matte scrim face.

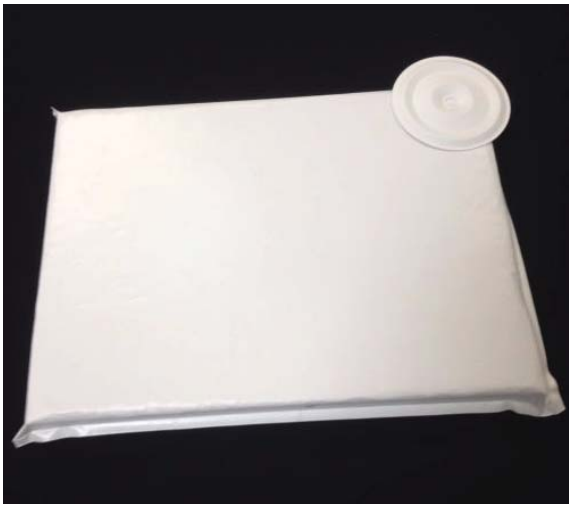
Thickness: 1”, 2”
Size: 4' Standard Width
Finish: Black Scrim Fabric
Mounting: Washer Plates, Adhesive
Fire Rating: Class A

Sound Absorption Coefficients (1.5 PCF Ecose® Blanket)							
Size	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	NRC
1”	0.18	.36	.59	.86	.95	.90	**.70**
2”	0.34	.64	.96	1.03	1.00	1.03	**.90**

SONORA® LITE PANEL - PVC Encapsulated

Construction:
1.5 PCF or 3 PCF glass fiber core with PVC Covering

Thickness: 1”, 2”
Size: up to 4' x 8'
Mounting: 3" Diameter Washer Plates
Finish: PVC Film
Fire Rating: Class A

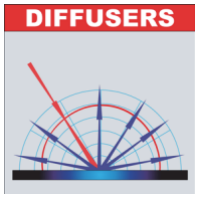


Sound Absorption Coefficients (1.5 PCF Ecose® Blanket)							
Size	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	NRC
1”(3PCF)	0.07	.31	.76	1.12	.68	.26	**.70**
2”(1.5PCF)	0.35	.80	1.19	1.02	.63	.32	**.90**

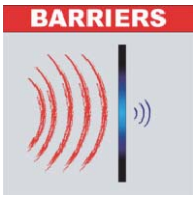
ACOUSTICS FIRST® PRODUCT OVERVIEW

General description of the different types and functions of acoustic products.

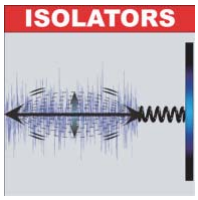
Sound Absorbers. Absorbers will bring down the over all sound or noise level in a room by reducing the sound energy. This serves to make a room sound 'better' and quieter at the same time. Sound Absorbers are the most common type of acoustical product.



Sound Diffusers. (Alt. Diffusors.) Acoustical Sound Diffusers are used to fine tune a room's acoustics. They are usually used to correct problems within a specific frequency range. The advantage of using Sound Diffusers is that you can improve the sound of a room without removing all of the energy, which may cause it to sound too "dead" or quiet for certain critical listening activities.



Sound Barriers. A sound barrier is used to block the transmission of airborne sound and noise from one room or area to another. These products are usually dense, and heavy, such as our 'BlockAid Vinyl Sound Barrier'.



Vibration Control. Vibration Control products are often used in conjunction with Sound Barriers. Noise from structural vibration will travel from room to room by different paths than airborne sound. If bass heavy music is causing a wall to vibrate, then simply blocking the airborne portion of the sound will not solve the whole problem. In situations like this you use a vibration control product to interrupt and isolate the structural transmission of sound.

Acoustic Measurement Terminology

Sound Absorption Coefficient: A number relating to how much acoustic energy a material absorbs at a certain frequency. It ranges from 0.00 (no absorption) to 1.00+ (near complete absorption.)

Noise Reduction Coefficient (NRC): An average of the Sound Absorption Coefficients from 250 Hz – 2000 Hz. Gives an idea of how much energy a material absorbs – Zero through 1.00+ as above.

Sabin: A unit of sound absorption. One square foot of 100% absorption equals 1 Sabin.

Sound Transmission Class (STC): Rating of how well a material blocks airborne sounds. Roughly equal to the reduction in noise in decibels (dB.)

Decibel (dB): A measurement unit of sound intensity. The smallest audible sound (near silence) is 0dB. A sound 10 times as powerful is 10dB. A sound 100 times as powerful as near silence is 20dB; 30dB equals 1000 times more powerful… etc.

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