

SECTION 6

ALL WEATHER SOUND PANELS

- All Weather Sound Panel Brochure
- Hurricane Model Specification Sheet
- Industrial Model Specification Sheet
- Dimensional Drawings
- Installation Hardware
- Installation Profile – Ida Stewart Elementary
- Installation Profile – Aston Gardens
- All Weather Sound Panel 3 Part Specification
- All Weather Sound Panel Test Index
- NRC & STC Acoustical Test Reports
- Static Air Pressure Test (Wind Load)
- UL Standard 263 Fire Rating Test

ARCHITECTURAL SPECIFICATIONS

Acoustiblok All Weather Sound Panels™

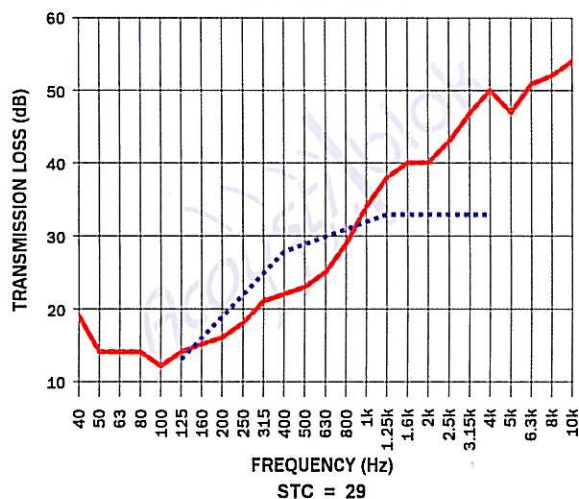
A high STC & NRC sound panel capable of outdoor exposure in full UV and weather. Acoustic ratings: STC 29 and NRC 1.0. Corrosion resistant; 6063-T5 welded frame and 5052-H32 facing, aluminum alloys. UL 723 Class A fire rated, flame spread 0, smoke developed 0. Static Wind Load Tested to 271 mph (188 psf) [436 km/h (917 kg/m²)].

SOUND ABSORPTION REPORT
RAL - A07 - 180



SAA = 1.00 NRC = 1.00 (the highest rating)

SOUND TRANSMISSION REPORT
RAL - TL07 - 365 - B

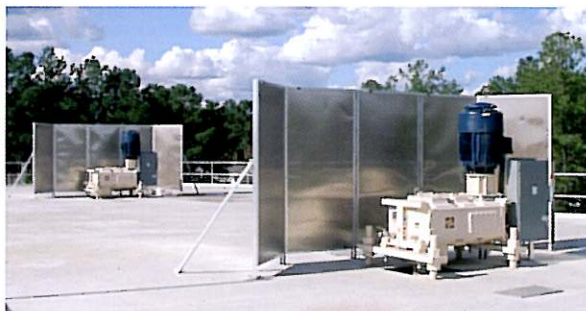


STC = 29

— TRANSMISSION LOSS
..... STC CONTOUR

HERE ARE JUST A FEW OF THE MANY APPLICATIONS OF THE ACOUSTIBLOK ALL WEATHER SOUND PANELS™

- | | |
|--------------------|-------------------------|
| Highway Road Noise | Oil Drilling Rigs |
| Mass Transit | Kennels |
| Power Generators | Zoos |
| Industrial noise | Mining operations |
| AC chillers | Recording studios |
| Race tracks | Correctional facilities |
| Compressors | Hospitals |
| Railroad yards | Restaurants |
| Subways | Childcare centers |
| Stadiums | Swimming pool areas |
| Schools | Gymnasiums |
| Indoor Arenas | Auditoriums |
| Airports | Marine |
| Shooting ranges | Engine test cells |



Now in compliance with EPC codes



Panels prevented moving chillers

Made in U.S.A.

www.acoustiblok.com

(813) 980-1400 sales@acoustiblok.com

6900 Interbay Blvd. Tampa, Florida USA 33616

Saudi Arabia office 1966-1-211-8193

1442 Kingdom Tower, Riyadh, Kingdom of Saudi Arabia

Acoustiblok®

QUIETING THE WORLD

ACOUSTIBLOK ALL WEATHER SOUND PANELS™

For serious industrial noise problems, the "Acoustiblok All Weather Sound Panels" not only block sound, but also absorb extreme amounts of noise with virtually no reflections (NRC 1.00, independent lab test). Noise is increasing everywhere as are the new noise ordinances from the EPC, EPA, federal government and of course OSHA. Adding to the problem, the public is now aware that the courts will enforce these mandates regardless of costs. Unlike conventional indoor sound panels, which can not endure adverse conditions, "All Weather Sound Panels" are engineered specifically to withstand the most rigorous outdoor and industrial environments. Water, sun, hurricane winds, salt air, salt water, dirt, chlorine air, grease, corrosion, mold, and most harsh chemicals are not a problem. Washable with a hose and soapy water. Easily installed for hundreds of applications. The hurricane panel is tested at over 270 mph [435 km/h]! (An F5 tornado is 261 mph [420 km/h].)

Community pumping station noise resolved while maintaining accessibility for service and cooling



Simply installed between 3" I-Beams

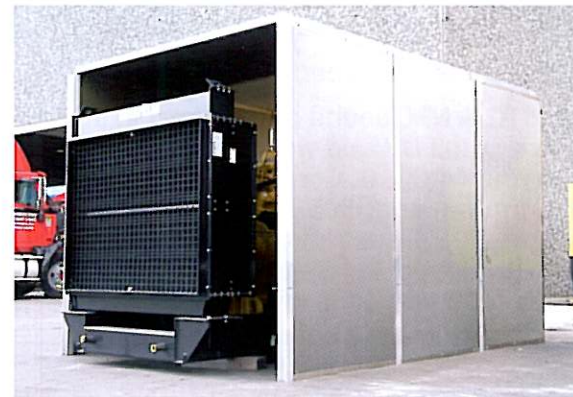
AWSP TRI 1208



Even with a block wall enclosure, a Florida school's upgraded AC chillers created a serious noise problem. Acoustiblok Sound Panels provided a cost effective solution, reducing SPL by 24.9 dB at the school property line.



As communities become denser and traffic noise increases, there is a real need to reduce noise levels in residential areas.



Simple, easy to erect noise suppression. Self supporting panels, all environments, NRC 1.00 (highest absorption rating).

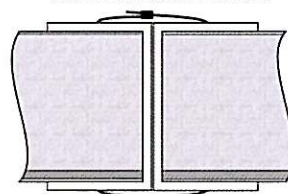
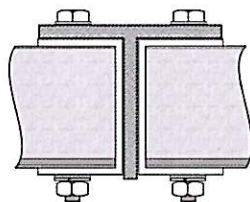


Unlike a solid wall, the panels absorb all sound that would normally be reflected back into the Washington DC community

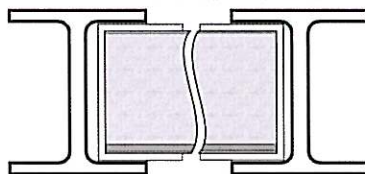
MODULAR DESIGN FOR FAST INSTALLATION AND EASY REMOVAL / PORTABILITY / STORAGE

CUSTOM T-BAR ASSEMBLY
ACOUSTIBLOK PART # TBARHP

STEEL WIRE TIE FOR TEMPORARY OR PERMANENT INSTALLATION
ACOUSTIBLOK PART # SST14



CAPTIVE INSTALLATION BETWEEN ALUMINUM H-BEAMS
ACOUSTIBLOK PART # 2ALUMIBEAM



Panels also attach directly to existing walls or fences

Other outdoor noise abatement methods currently available require very expensive, large and permanent fixtures. Acoustiblok All Weather Sound Panels™ have extreme advantages over other competitors. They are less expensive, stocked in 5 standard sizes (4'x4') (4'x6') (4'x8') (4'x10') (4'x12') and 2.4" thick, making them easy to install or move to other locations. UV, exhaust emissions, and water have virtually no effect on them. These panels are UL 723 Class A fire rated, with flame spread and smoke developed of zero. The panels can withstand winds up to 270 mph [435 km/h].

© Acoustiblok Inc. Specifications subject to change without notice.



Chiller noise in retirement center was unacceptable to tenants until panels were installed: A tremendous savings over moving the chillers.

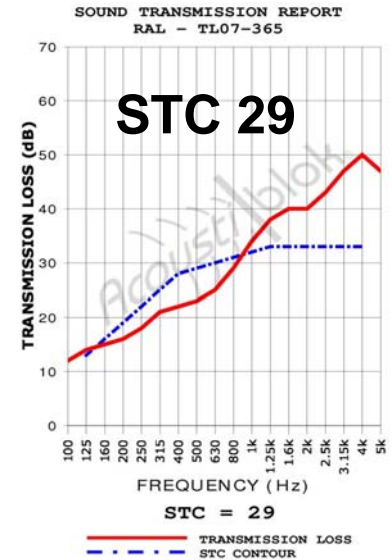
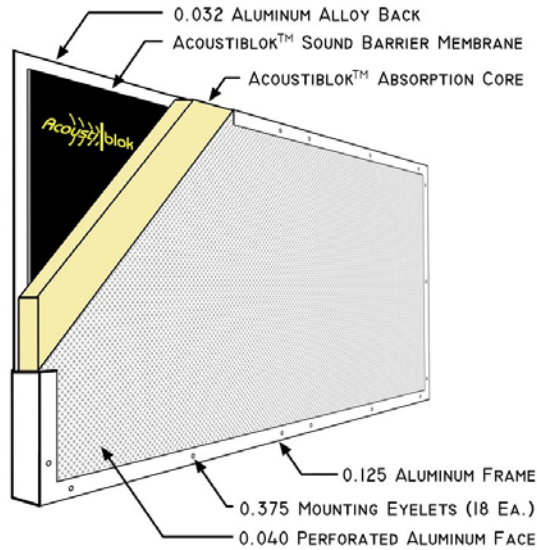
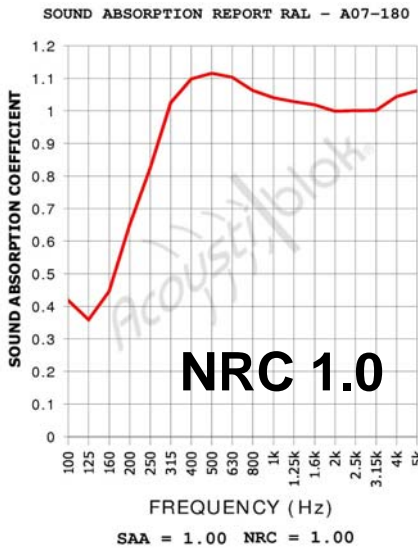


Install directly to standard framing, fencing or structure surface. Simple fastening through welded mounting eyelets.



Panels can easily be erected or removed without skilled labor or special tools.

All Weather Sound Panel® (Pat. Pend) Industrial Model



Acoustiblok All Weather Sound Panels® achieve high STC and NRC ratings. They have been specifically designed to withstand outdoor exposure in full sunlight, extreme weather conditions and harsh industrial environments. Acoustical rating of NRC of 1.0 is the highest sound absorption rating possible. Strong and durable corrosion resistant aluminum alloy construction is used.

All Weather Sound Panels include an internal layer of U.L. classified Acoustiblok sound isolation material plus a specifically engineered 2" (50.8mm) thick weather proof sound absorption material. The Industrial model of the All Weather Sound Panel is available in standard sizes of 4'x4', 4x6', 4'x8', 4'x10' and 4'x12'.

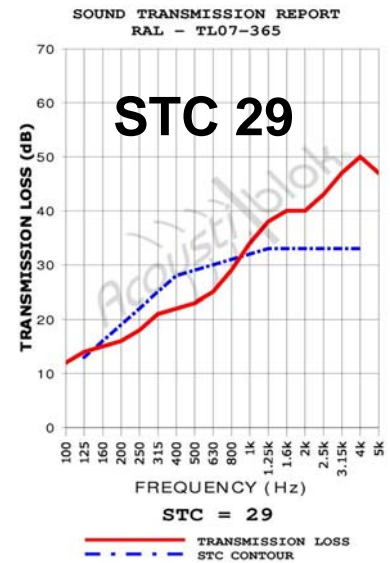
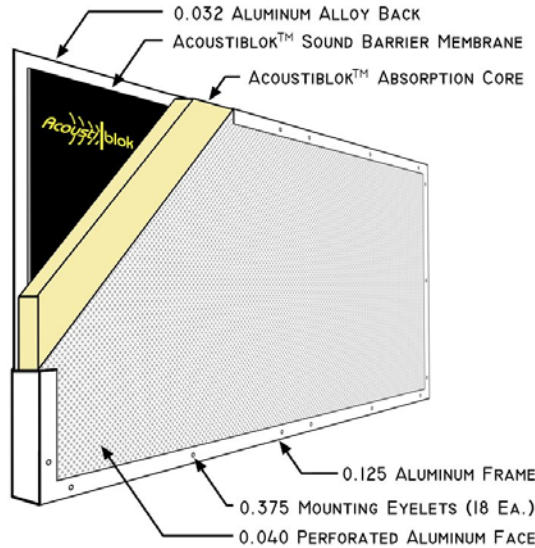
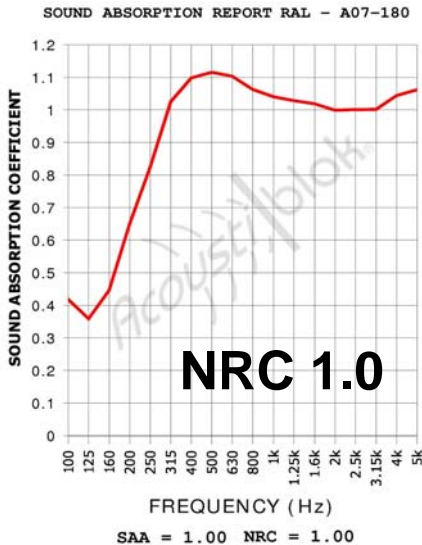
All Weather Sound Panel - Industrial Model Specifications:									
NRC (Noise Reduction Coefficient): 1.0	Gross dimensions: up to 48" x 120"x 2.423", ± 0.125" Custom sizes available on special order.								
STC (Sound Transmission Class): 29	Frame construction: U-channel frame 0.125" welded corrosion resistant 6063-T5 aluminum, mill finish, eyelets: 0.375"								
<table border="0"> <tr> <td><u>Size:</u></td> <td><u>Weight:</u></td> </tr> <tr> <td>4' x 8'</td> <td>104 lbs. (48 kg)</td> </tr> <tr> <td>4' x 10'</td> <td>135 lbs. (62 kg)</td> </tr> <tr> <td>4' x 12'</td> <td>165 lbs. (75 kg)</td> </tr> </table>	<u>Size:</u>	<u>Weight:</u>	4' x 8'	104 lbs. (48 kg)	4' x 10'	135 lbs. (62 kg)	4' x 12'	165 lbs. (75 kg)	Front face: Perforated 0.040 corrosion resistant 5052-H32 aluminum alloy, 3/32" round holes staggered 5/32" centers. Back face: Solid 0.032 (0.80mm) corrosion resistant 5052-H32 aluminum alloy, mill finish
<u>Size:</u>	<u>Weight:</u>								
4' x 8'	104 lbs. (48 kg)								
4' x 10'	135 lbs. (62 kg)								
4' x 12'	165 lbs. (75 kg)								
UL Std 723 Fire Resistance Tested: Class A: Flame Spread 0 Smoke Developed 0	UV tolerant, animal resistant, washable, does not support mold growth.								

Independent Testing by accredited NVLAP testing facility in compliance with ASTM E90, E 413, and other applicable industry standards.

*Although all sizes of the Hurricane panel are made with same mechanical design, only the 4' x 8' was wind load tested.

(Specifications subject to change without notice.)

All Weather Sound Panel® (Pat. Pend) Hurricane Model



Acoustiblok All Weather Sound Panels® achieve high STC and NRC ratings. They have been specifically designed to withstand outdoor exposure in full sunlight, extreme weather conditions and harsh industrial environments. Acoustical rating of NRC of 1.0 is the highest sound absorption rating possible. Durable and strong static air pressure tested to failure at 270 mph (436 km/h).

All Weather Sound Panels include an internal layer of U.L. classified Acoustiblok sound isolation material plus a specifically engineered 2" (50.8mm) thick weather proof sound absorption material. The Hurricane model of the All Weather Sound Panel is available in sizes of 4'x8', 4'x10' and 4'x12'. Mechanical drawings available

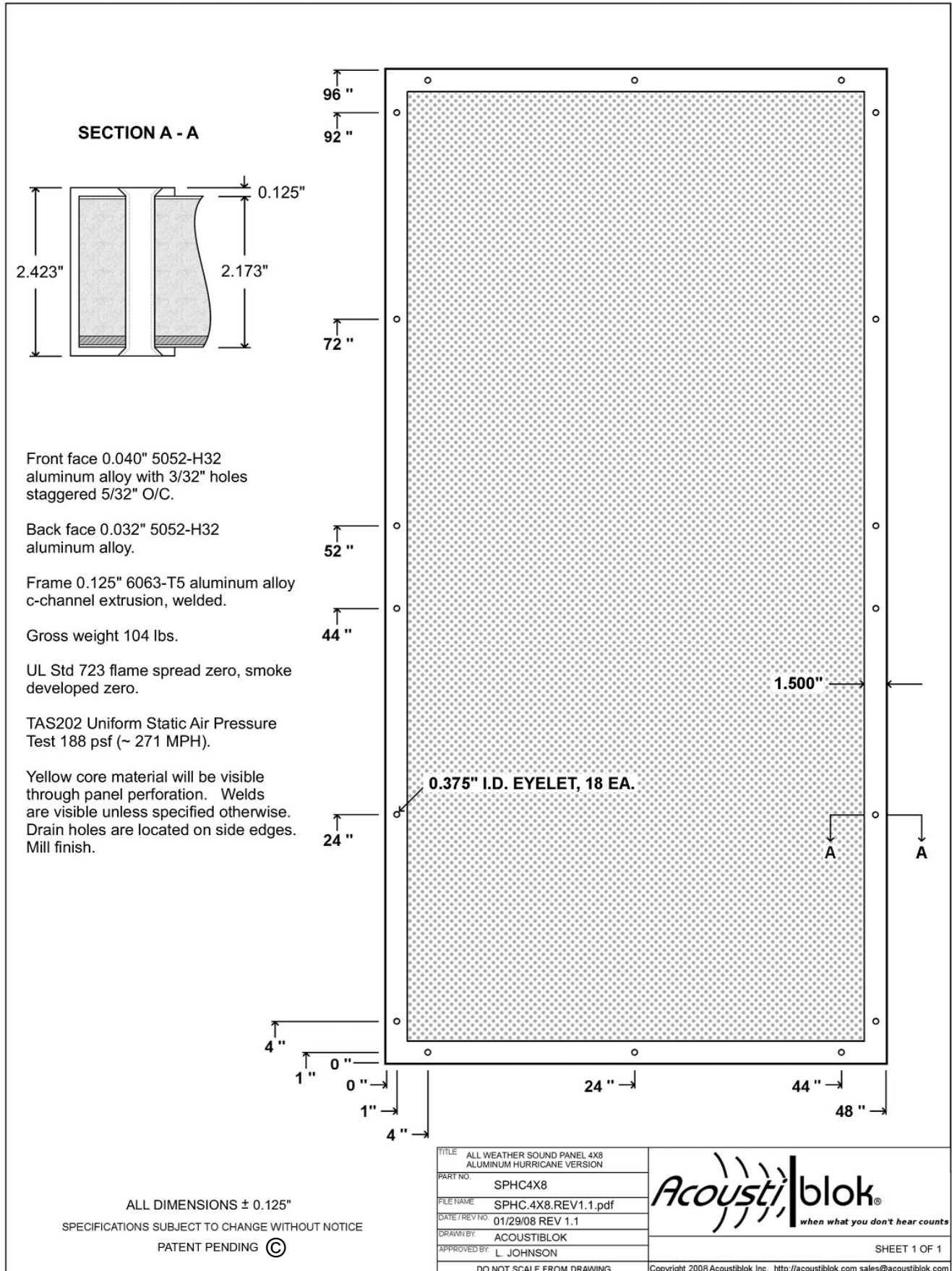
All Weather Sound Panel - Hurricane Model Specifications:									
NRC (Noise Reduction Coefficient): 1.0	Gross dimensions: up to 48" x 120" x 2.423", ± 0.125" Custom sizes available on special order.								
STC (Sound Transmission Class): 29	Frame construction: U-channel frame 0.125" welded corrosion resistant 6063-T5 aluminum, mill finish, eyelets: 0.375"								
<table border="0"> <tr> <td><u>Size:</u></td> <td><u>Weight:</u></td> </tr> <tr> <td>4' x 8'</td> <td>104 lbs. (48 kg)</td> </tr> <tr> <td>4' x 10'</td> <td>135 lbs. (62 kg)</td> </tr> <tr> <td>4' x 12'</td> <td>165 lbs. (75 kg)</td> </tr> </table>	<u>Size:</u>	<u>Weight:</u>	4' x 8'	104 lbs. (48 kg)	4' x 10'	135 lbs. (62 kg)	4' x 12'	165 lbs. (75 kg)	Front face: Perforated 0.040 corrosion resistant 5052-H32 aluminum alloy, 3/32" round holes staggered 5/32" centers. Back face: Solid 0.032 (0.80mm) corrosion resistant 5052-H32 aluminum alloy, mill finish
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4' x 12'	165 lbs. (75 kg)								
UL Std 723 Fire Resistance Tested: Class A: Flame Spread 0 Smoke Developed 0	UV tolerant, animal resistant, washable, does not support mold growth.								
TAS202 Uniform Static Air Pressure Test Results: 188psf ~271mph (436km/h) Hurricane Engineering & Testing Miami, FL USA*									

Independent Testing by accredited NVLAP testing facility in compliance with ASTM E90, E 413, and other applicable industry standards.

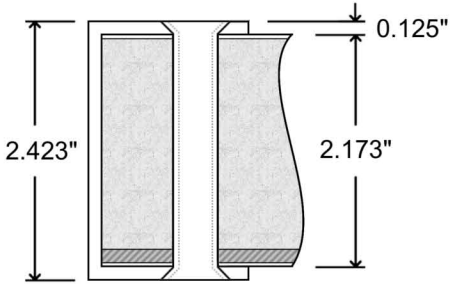
*Although all sizes of the Hurricane panel are made with same mechanical design, only the 4' x 8' was wind load tested.

(Specifications subject to change without notice.)

Hurricane Model Specification Drawing



SECTION A - A



Front face 0.040" 5052-H32 aluminum alloy with 3/32" holes staggered 5/32" O/C.

Back face 0.032" 5052-H32 aluminum alloy.

Frame 0.125" 6063-T5 aluminum alloy c-channel extrusion, welded.

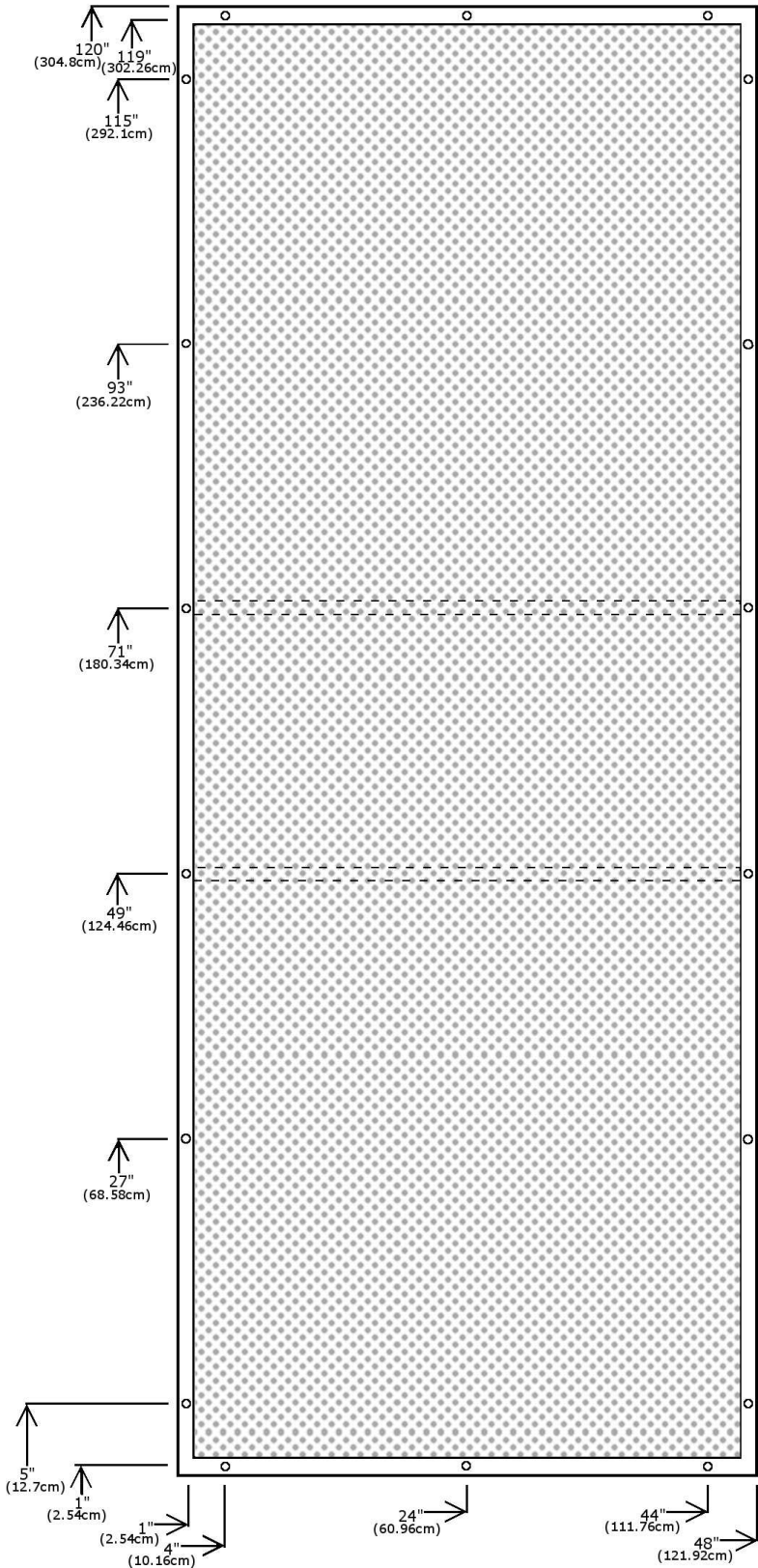
Gross weight 135 lbs.

UL Std 723 flame spread zero, smoke developed zero.

TAS202 Uniform Static Air Pressure Test 188 psf (~ 271 MPH).

Yellow core material will be visible through panel perforation. Welds are visible unless specified otherwise. Drain holes are located on side edges. Mill finish.

Stainless Steel Straps 1.500" wide to promote structural integrity in hurricane force winds. Located at the 49" and 71" eyelets.



ALL DIMENSIONS ± 0.125"

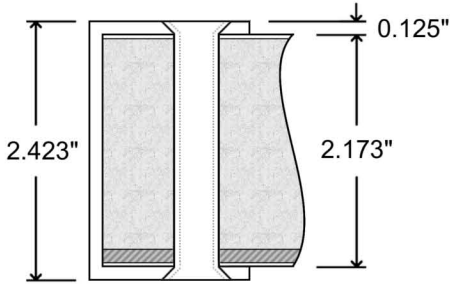
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

PATENT PENDING

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PART NO.	HAWSP410
FILE NAME	HAWSP.410.REV1.1.pdf
DATE / REV NO	10/02/2008 REV1.1
DRAWN BY	ACOUSTIBLOK
APPROVED BY	L. JOHNSON
DO NOT SCALE FROM DRAWING	



SECTION A - A



Front face 0.040" 5052-H32 aluminum alloy with 3/32" holes staggered 5/32" O/C.

Back face 0.032" 5052-H32 aluminum alloy.

Frame 0.125" 6063-T5 aluminum alloy c-channel extrusion, welded.

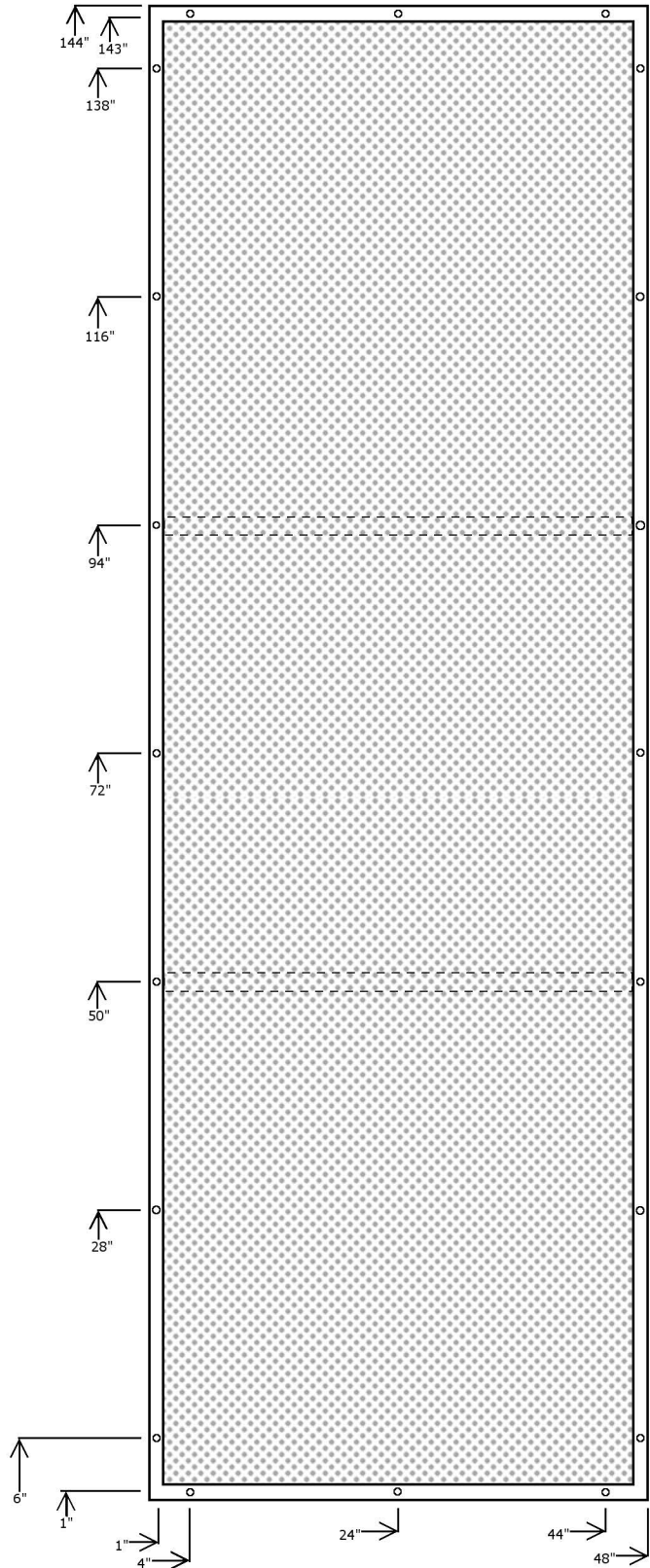
Gross weight 165 lbs.

UL Std 723 flame spread zero, smoke developed zero.

TAS202 Uniform Static Air Pressure Test 188 psf (~ 271 MPH).

Yellow core material will be visible through panel perforation. Welds are visible unless specified otherwise. Drain holes are located on side edges. Mill finish.

Stainless Steel Straps 1.500" wide to promote structural integrity in hurricane force winds. Located at the 50" and 94" eyelets.



ALL DIMENSIONS ± 0.125"

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

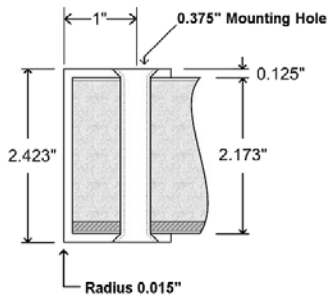
PATENT PENDING

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PART NO.	HAWSP412
FILE NAME	HAWSP412.REV1.1.pdf
DATE / REV NO	09/09/2008 REV 1.1
DRAWN BY	ACOUSTIBLOK
APPROVED BY	L. JOHNSON
DO NOT SCALE FROM DRAWING	

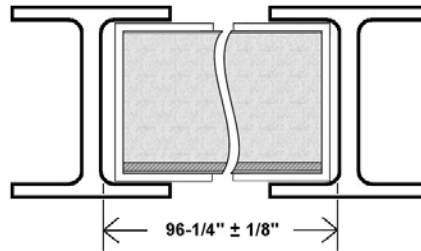


All Weather Sound Panel® Installation Suggestions

**CROSS SECTION THROUGH
PANEL FRAME**

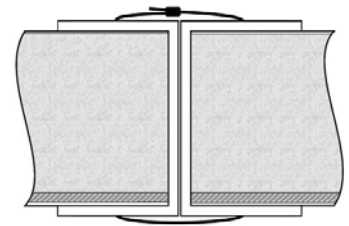


**CAPTIVE INSTALLATION BETWEEN
ALUMINUM I-BEAMS
ACOUSTIBLOK PART # 2ALUMIBEAM**



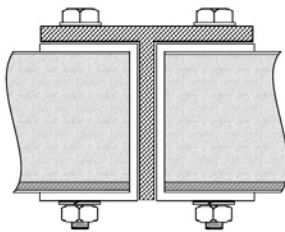
SHOWN: Aluminum I-Beam, 2-1/2" wide x 3" deep.
Note that the flanges of the beam are too short
to permit the use of cross bolts through panel eyelets.
Panels easily removed for service access.

**STEEL WIRE TIE ASSEMBLY FOR TEMPORARY
OR PERMANENT INSTALLATION
ACOUSTIBLOK PART # SST14**



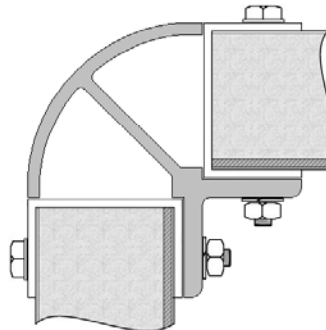
SHOWN: Panels secured side by side with high
tensile steel wire ties. Panels may be secured to each
other, to fence posts, etc. Calculate the load the wire
ties can support from manufacturer's specifications.

**CUSTOM T-BAR ASSEMBLY
ACOUSTIBLOK PART # TBARHP**



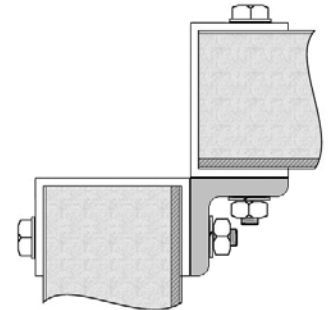
SHOWN: 3-1/4" x 2-5/8" x 1/4" extruded aluminum T-Bar.
Bolts 1/4" dia 3-1/2" minimum length. T-bar is available
from Acoustiblok Inc. May be bolted, heli-arc welded, or
sunk into concrete. 6063-T5 alloy, mill finish, 25 ft, 43 lbs/ea

**CORNER CONNECTOR ASSEMBLY
ACOUSTIBLOK PART # ALUM-RAD90**



SHOWN: 4-1/8" x 4-1/8" x 1/4" extruded aluminum Corner
Connector. Bolts - 1/4" x 3-1/2" length. Corner Connectors
are available from Acoustiblok Inc. May be bolted, heli-arc or
TIG welded, or sunk into concrete.
6063-T5 alloy, mill finish, 25 ft., ~60 lbs each.

**ALUMINUM STRUCTURAL ANGLE CORNER
ACOUSTIBLOK PART # ALUM. ANGLE 1.5 x 1/4**



SHOWN: 1-1/2" x 1-1/2" x 1/4" extruded structural angle.
Bolts - 1/4" x 3" length. Structural aluminum angle is
available from Acoustiblok Inc. May be bolted, heli-arc or
TIG welded, or sunk into concrete.
6061-T5 alloy, mill finish, 25 ft., ~15 lbs. each.

Acoustiblok All Weather Sound Panels are suitable for indoor and outdoor use. They may be mounted directly to existing walls, fences, framework, etc. with standard industry fasteners. The perforated side faces the noise source.

The above cross-section views of installation methods show assembly details of metal framing for free-standing or mounted barrier walls and enclosures using commonly available materials.

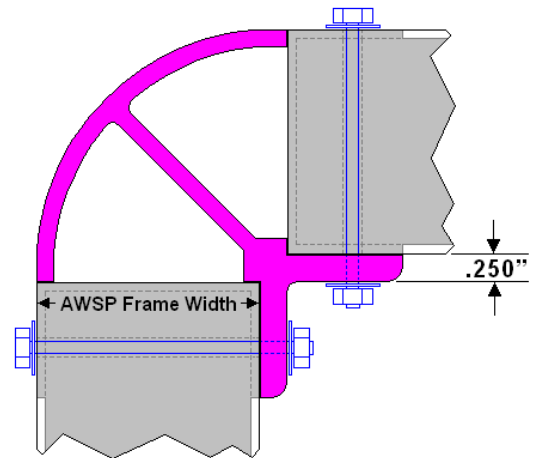
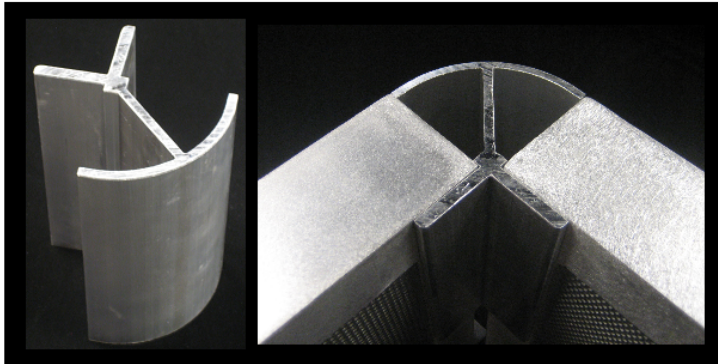
Panel assembly components include Acoustiblok's T-Bar and Corner Connector extrusions made of high quality aluminum alloy.

All seams, gaps or unused mounting holes should be completely filled with soft, UV tolerant Acoustiblok Acoustical Sound Sealant.

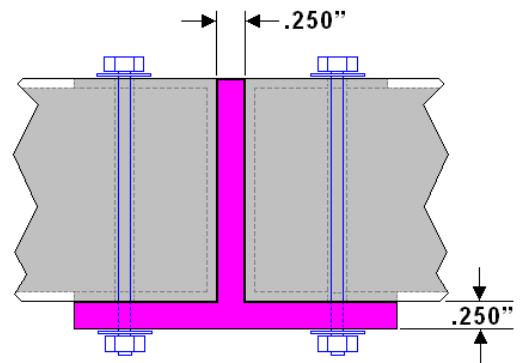
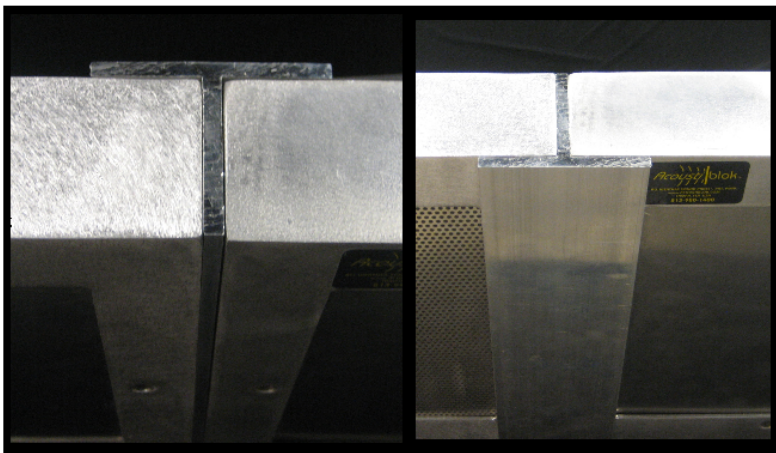
These configurations are suggestions only and a structural engineer should be consulted for structural integrity. All Weather Sound Panel drawings are available upon request.

All Weather Sound Panel Accessories

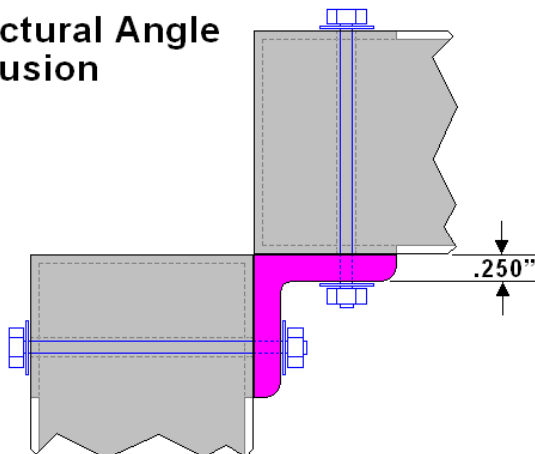
.250" Custom Corner Connector Extrusion



.250" Custom T-Bar Extrusion



.250" Structural Angle Extrusion



Stainless Steel Hardware Assembly

Includes:

- (1) 3" x 1/4 - 20 Stainless Steel Bolt
- (1) 1/4" Stainless Steel Washer
- (1) 1/4" Stainless Steel Lock Washer
- (1) 1/4 - 20 Stainless Steel Nut

Also Available in 5/16" and 3/8"

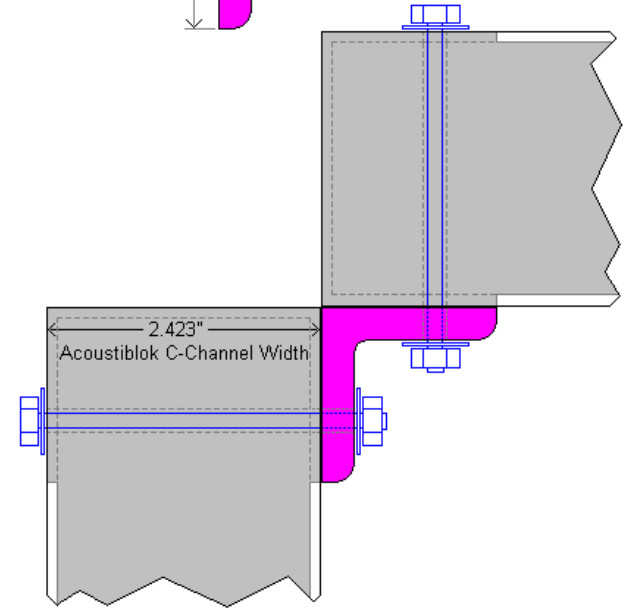
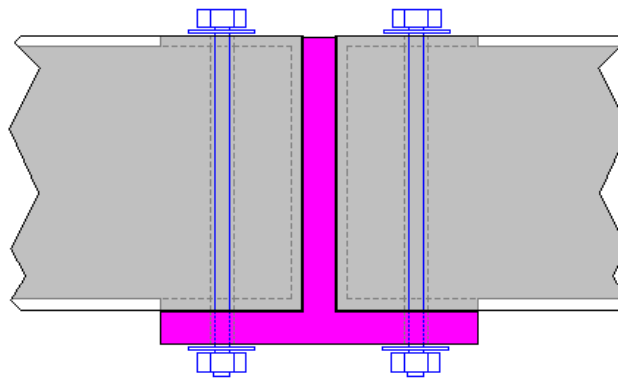
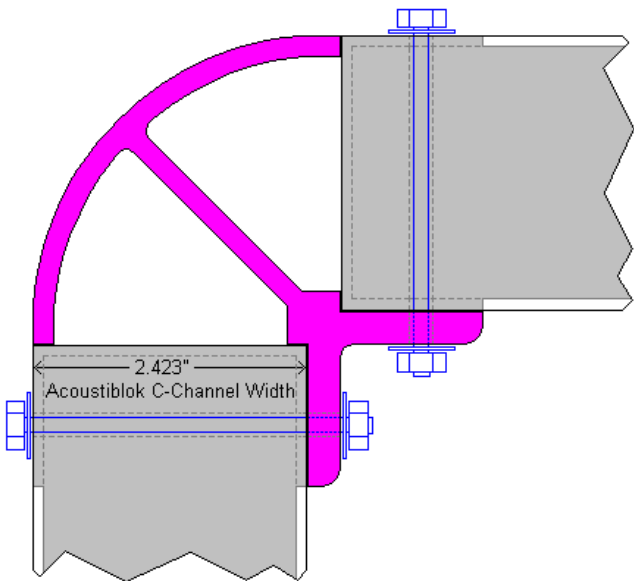
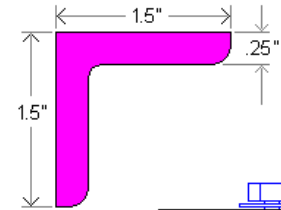
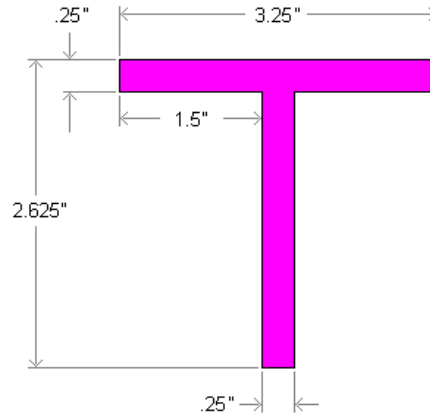
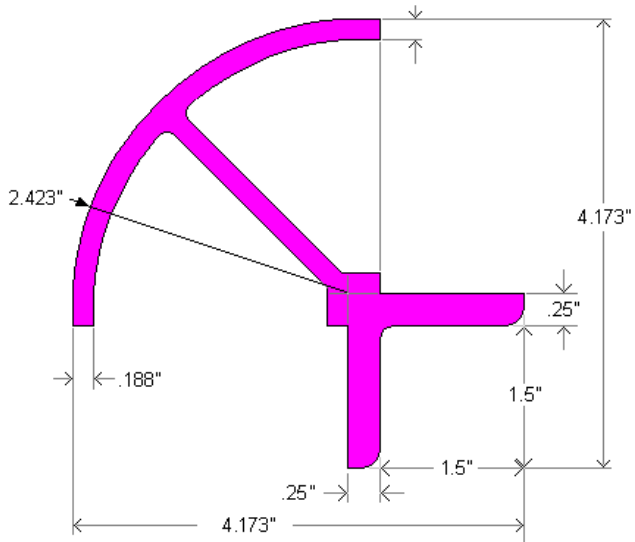
ACOUSTIBLOK Inc.		REV. 0
6900 Interbay Blvd. Tampa, FL 33616 © LJ Avalon LLC 2010		
Part name: AWSP Accessories		
Part Number: AWSP Accessories		
For:		
Drm by:	V. Miko	Date: 03.11.2010
Chk by:		Date:
Appr. by:		Date:
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE		

Sym	Revision Notes	Rev. by	Appr. by	Date

Alum. Corner Connector

Alum. T-Bar

Alum. Angle



Acoustibloks' AWSP Mounting Accessories
Corner Connector
T-Bar
Alum. Angle

Stainless Steel Hardware - Available in: 1/4" 5/16" 3/8"
 includes: Hex Bolt & Nut, Washer, Lock Washer

ACOUSTIBLOK Inc.		REV. 0
6900 Interbay Blvd. Tampa, FL 33616 © LJ Avalon LLC 2010		
Part name: Accessories - Tech Specs		
Part Number: Accessories - Tech Specs		
For:		
Drn by: V. Miko	Date: 03.11.2010	
Chk by:	Date:	
Appr. by:	Date:	
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE		

All Weather Sound Panel Chiller Noise Installation Profile

The Ida Stewart Elementary School in Bradenton, Florida, faced a challenge common at schools throughout the U.S.: replacing older, water cooled air conditioning chiller units with more efficient air cooled chillers resulted in dramatic increases in noise.

Upgrading the air conditioning chillers was a decision based on economic necessity, but it also increased the noise pollution on school grounds and in the neighborhood – as well as put Ida Stewart Elementary in violation of noise pollution regulations.

The school first tried a conventional noise abatement method which provided a limited - and inadequate – reduction in the noise from the new chillers: a 10 foot concrete block wall was built to surround the chillers, forming a corner with the adjacent 25 foot exterior wall of the school.

Although a concrete block wall will provide some noise relief, it generally allows a substantial amount of noise to escape. First, a concrete block wall is rigid: when sound waves hit the walls, they bounce back and forth *inside* the structure. Second, after bouncing inside the walls, the noise *escapes* from the open top of the structure - with virtually no loss in volume. The noise that has escaped then reflects off any objects it meets, such as nearby houses, walls, trees, etc.

Managers at the Ida Stewart Elementary School were dissatisfied with the results of the concrete block wall construction – especially since the children’s play area was nearby the noisy chillers.

Acoustiblok All Weather Sound Panels were installed between 3” aluminum I-beams around the chiller unit, positioned 3’ from the chiller and 10” off the ground. The 4’ x 8’ panels were easily secured with stainless steel bolts. One panel was installed like a gate, with stainless steel hinges, to allow access to the chiller for servicing and repairs.

As the test results (below) show, Acoustiblok All Weather Sound Panels reduced noise levels by an amazing 18 - 40 decibels (dB). Noise Criteria (NC) levels, the measurement of noise relative to human hearing, were reduced by 70% - 93%.

Acoustiblok All Weather Sound Panels are engineered to withstand the most rigorous outdoor and industrial environments. The cover fabric is durable, UV tolerant and easily cleaned with soap and water.

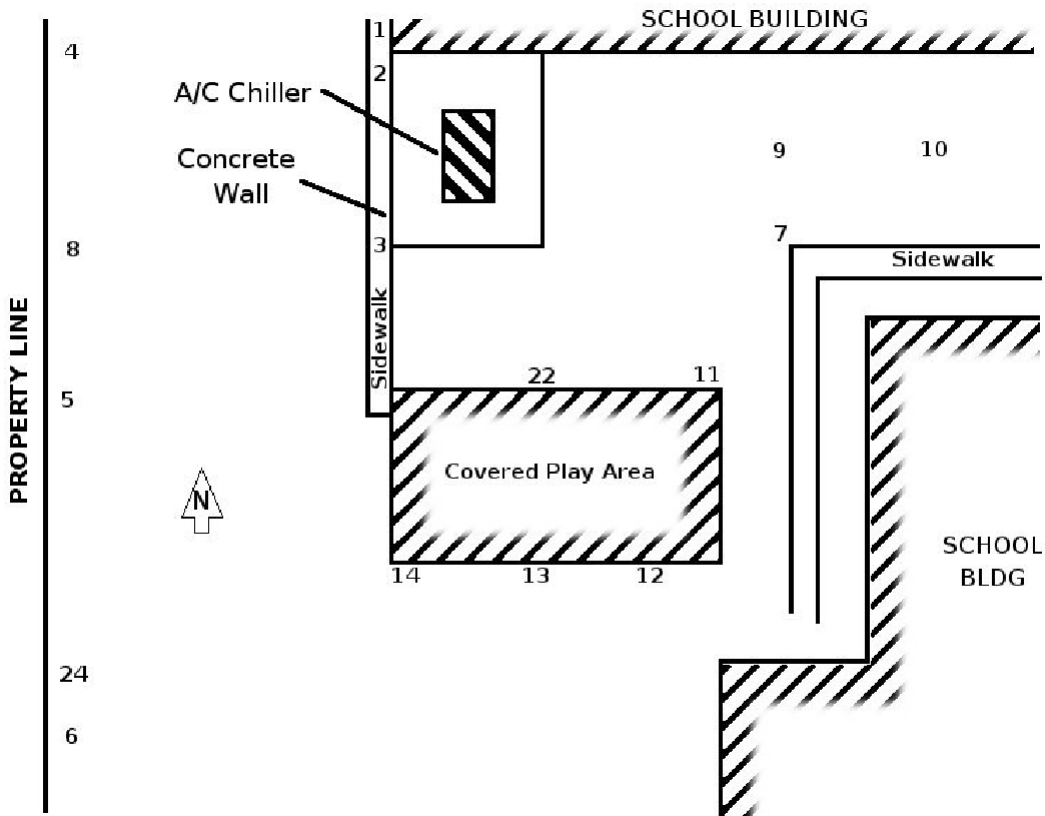
Acoustiblok All Weather Sound Panels were a cost-effective solution for the Ida Stewart Elementary School, whose students – and neighbors - now enjoy a quieter environment.

ACOUSTICAL ANALYSIS REPORT

CLIENT: IDA STEWART ELEMENTARY PHYSICAL ADDRESS: xxxxxxxxxxxxxxxxxxxxxx BRADENTON FL	CLIENT PHONE(S): 941-748-xxxx fax 747-xxxx FIELD CONTACT: Gerard xxxxxxxx, P.E. TITLE: Senior Mechanical Engineer SPECIAL INSTRUCTIONS:
PRE-INSTALLATION CONDITIONS & DATA TECHNICIAN(S): MARYLIN START DATE/TIME: OCT 4 2004 09:15 END DATE/TIME: OCT 4 2004 10:40 TEMP: 80 DEF F WIND: E 7 MPH HUMIDITY: 79% EQUIPMENT USED (Maker/Model): Sencore SP 295	POST-INSTALLATION CONDITIONS & DATA TECHNICIAN(S): S. KINNEY START DATE/TIME: JAN 3 2005 15:20 END DATE/TIME: JAN 3 2005 16:00 TEMP: 79 DEG F WIND: E 4-6 MPH HUMIDITY: 54% EQUIPMENT USED (Maker/Model): Sencore SP 295
INCIDENTAL NOISE SOURCES:	INCIDENTAL NOISE SOURCES:

LOCATION	PRE-INSTALLATION RESULTS					POST-INSTALLATION RESULTS					DIFFERENCE	
	NC	LMTG BAND	LB DB	SPL DB	SPL /WT	NC	LMTG BAND	LB DB	SPL DB	SPL /WT	NC	SPL
	1	52	1000	53.7	85.6		38	63	39	45		-14.0
2	52	1000	54.2	86.1		47	250	49.1	62.4		-5	-23.7
3												
4	46	1000	49.2	72		40	500	41.1	47.7		-6	-24.3
5	49	1000	49.8	62.3		38.8	63	39	44.5		-10.2	-17.8
6	46	1000	50	64.1		39	250	40.8	46		-7	-18.1
7	53	500	49.1	72		41	63	43.6	46.3		-12	-25.7
8	50	1000	49.2	71.2		38	63	42.7	46.3		-12	-24.9
9	49	1000	49.7	70.1		42	500	45.1	50.9		-7	-19.2
10	47	1000	49.3	65.6		40	250	42.1	47.1		-7	-18.5
11	53	250	53.7	76.4		44	250	46.1	51.1		-9	-25.3
12	53	250	55.1	69.2		45	250	47.1	51.7		-8	-17.5
13	54	250	56.9	69.2		44	250	45.5	51		-10	-18.2
14	50	250	57.1	70.1		44	250	45	50.1		-6	-20
15	52	500	53.2	83.5		44	250	44.9	51.2		-8	-32.3
16	55	1000	54.3	71.8		43	250	45	49.1		-12	-22.7
17	64	250	74.9	82								
18	64	250	73.2	85.5								
19	64	250	74.9	85.2								
20	64	250	79.4	84.7								
21	64	250	76.1	85.5								
22	53	250	59	76.8		42	63	43	48.6		-11	-28.2
23	64	250	73.9	85.5								
24	56	63	51	63.7		38	2000	41.2	45.4		-18	-18.3

LOCATION: See attached map specifying location of test readings.
NC: Noise Criteria, preferred measurement relative to human hearing.
SPL: Sound Pressure Level is raw sound energy, typically cited in regulatory requirements.



The chiller unit is approximately 50 feet from the school's property line, and is enclosed by a 10 foot concrete block wall that is adjacent to the 25 foot exterior wall of the school. Acoustiblok All Weather Sound Panels were installed to surround the chiller inside block wall, maintaining a distance of 3 feet from the chillers.



ASTON GARDENS SENIOR LIVING CENTER OBTAINS NOISE REDUCTION EXCEEDING 75%

Aston Gardens Senior Living Center in Sun City, Florida, was facing a dilemma: although the noise from the roof AC handlers and compressors above the club house was causing loss of rental income from adjacent apartments, it would be prohibitably expensive to relocate the AC equipment to ground level.

Acoustiblok® All Weather Sound Panels™ solved the noise problem - without moving the AC equipment.

Installation of the 12 - 4' x 8' x 2" panels was completed in one day, resulting in an aesthetically pleasing solution that provided a noise level reductions from 16.9 to 31.8 decibels (dB). Averaging over -22 dB, the human ear perceives this as an average volume reduction exceeding 75%.

Acoustiblok All Weather Sound Panels are engineered to withstand the most rigorous outdoor and industrial environments. The cover fabric is durable, UV tolerant and easily cleaned with soap and water.

Acoustiblok All Weather Sound Panels were a cost-effective solution for Aston Gardens, whose residents now enjoy a quieter living environment.

"We had a problem renting many units because of the noise emanating from adjacent AC handlers and compressors located on the roof of our main clubhouse facility. The Acoustiblok All Weather Sound Panels worked as specified, and provided a substantial DB reduction, saving us from moving the AC equipment at great cost. The affected units are now all rented."

Jay Grollman, Vice President
Aston Care Systems
Sun City, FL



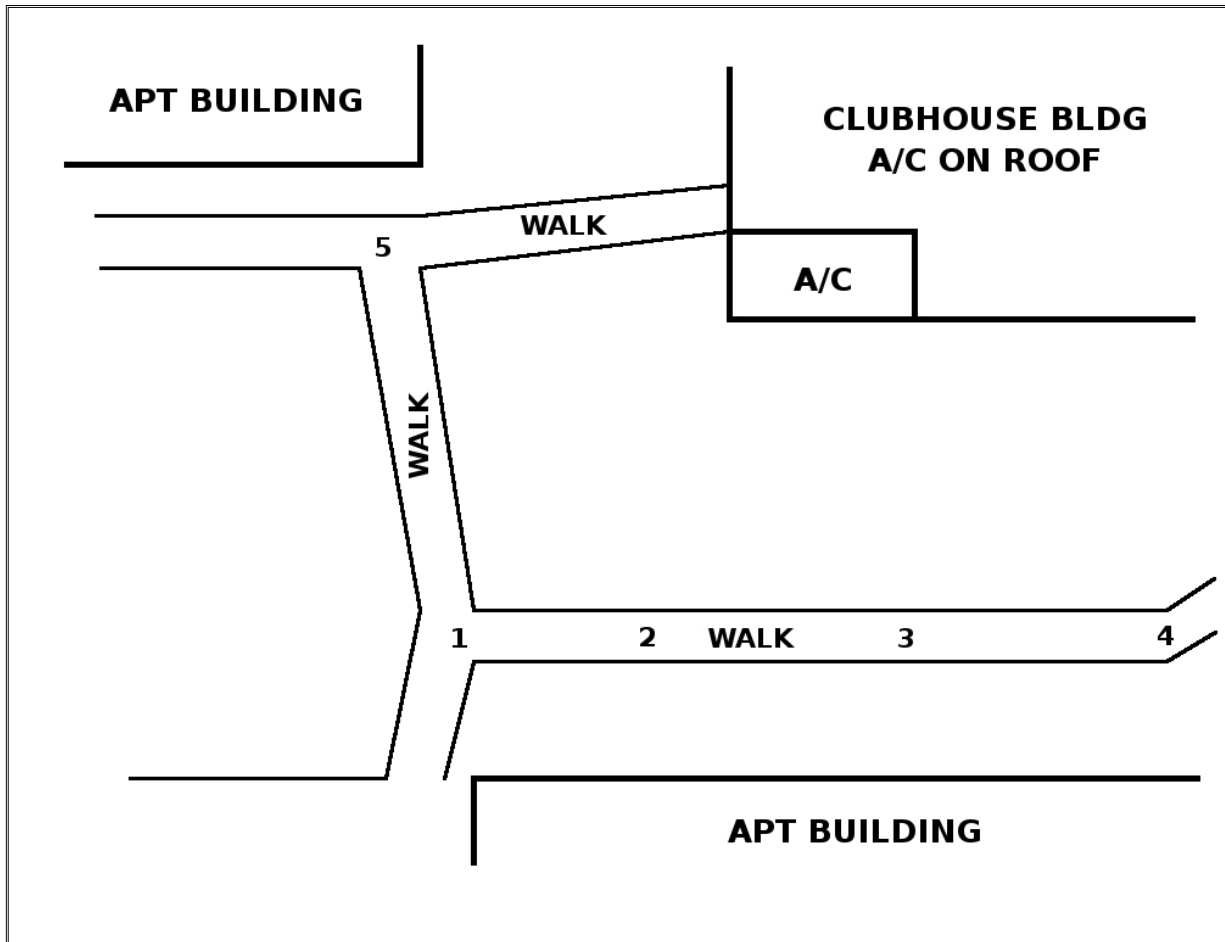


CLIENT: ASTON CARE	CLIENT PHONE(S): 813-478-8XXX
PHYSICAL ADDRESS: 1000 Aston Gardens Dr Venice FL 33616-2631 (Clubhouse building)	FIELD CONTACT: Jay Grollman TITLE: SPECIAL INSTRUCTIONS:
PRE-INSTALLATION CONDITIONS & DATA TECHNICIAN(S): L. Johnson START DATE/TIME: 2/5/04 11:30 END DATE/TIME: TEMPERATURE: 80 deg F HUMIDITY: 54 % WIND SPEED: var 5-10 mph DIRECTION: ESE EQUIPMENT USED (Maker/Model): Sencore SP 295 Photos of facility were also taken INCIDENTAL NOISE SOURCES:	POST-INSTALLATION CONDITIONS & DATA TECHNICIAN(S): S. Kinney START DATE/TIME: 1/21/05 15:50 END DATE/TIME: 1/21/05 16:10 TEMPERATURE: 68 deg F HUMIDITY: 65 % WIND SPEED: 0 – 2 DIRECTION: var EQUIPMENT USED (Maker/Model): Sencore SP 295 Digital photos of facility were also taken INCIDENTAL NOISE SOURCES: Construction site 100 yds N, drills & hammers etc.

LOCATION	PRE-INSTALLATION			POST-INSTALLATION			DIFFERENCE			
	NC	LMTG BAND	LB DB	SPL DB	NC	LMTG BAND	LB DB	SPL DB	NC	SPL
1		500		73				52.2		-20.8
2		500		74				51.8		-22.2
3		500		73				52.3		-20.7
4		500		69				52.1		-16.9
5		500		85				53.2		-31.8

LOCATION: See attached map specifying location of test readings.
NC: Noise Criteria, preferred measurement relative to human hearing & regulatory requirements.
SPL: Sound Pressure Level is raw sound energy, not as relative to human hearing or noise criteria.

Schematic map showing test point locations relative to facility





Acoustiblok, Inc.
 6900 Interbay Boulevard
 Tampa, FL 33616
 Phone: (813) 980-1400
 Fax: (813) 849-6347
 E-mail: sales@acoustiblok.com
www.acoustiblok.com

This MANU-SPEC® utilizes the Construction Specifications Institute (CSI) *Project Resource Manual* (PRM) including *MasterFormat™*, *SectionFormat™* and *PageFormat™*. A MANU-SPEC is a manufacturer-specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets []; delete optional text in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

This MANU-SPEC specifies sound isolation panels. These products are manufactured by Acoustiblok, Inc. Revise MANU-SPEC section number and title below to suit project requirements, specification practices and section content. Refer to CSI *MasterFormat™* for other section numbers and titles.

SECTION 09 80 00
ACOUSTIC TREATMENT

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Outdoor and industrial sound absorption panels.

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Section 01 42 19 - Reference Standards may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section. Retain only those reference standards to be used within the text of this Section. Add and delete as required for specific project.

1.02 REFERENCES

- A. ASTM International (ASTM):
 - 1. ASTM C423 Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
 - 2. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
 - 3. ASTM E413 Classification for Rating Sound Insulation.
 - 4. ASTM E795 Standard Practices for Mounting Test Specimens During Sound Absorption Tests.
- B. Testing Application Standard (TAS):
 - 1. TAS 202 Uniform Static Air Pressure Test.
- C. Underwriters Laboratories, Inc. (UL):
 - 1. UL 723 Tests for Surface Burning Characteristics of Building Materials.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor, either before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Section [01 33 00 - Submittals Procedures].

1.03 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Section [01 33 00 - Submittal Procedures] [_____].
- B. Product Data: Submit product data, including manufacturer's SPEC-DATA sheet, for specified products.
- C. Samples: Submit 12 inch × 12 inch (305 × 305 mm) samples of each product specified.
- D. Quality Control Submittals:
 - 1. Manufacturer's Instructions: Manufacturer's installation instructions.

Specifier Note: Article below should include prerequisites, standards, limitations and criteria that establish an overall level of quality for products and workmanship for this section. Coordinate article below with Division 01 Quality Assurance Section.

1.04 QUALITY ASSURANCE

- A. Regulatory Requirements: In accordance with Section [01 41 00 - Regulatory Requirements] [_____].

1.05 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Section [01 61 00 - Common Product Requirements] [_____].
- B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards, and descriptions as applicable. Use of such phrases as "or equal," "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

2.01 ACOUSTIC TREATMENT

Specifier Note: Paragraph below is an addition to CSI *SectionFormat* and a supplement to MANU-SPEC. Retain or delete paragraph below per project requirements and specifier's practice.

- A. Manufacturer: Acoustiblok, Inc.
 - 1. Contact: 6900 Interbay Boulevard, Tampa, FL 33616; Phone: (813) 980-1400; Fax: (813) 849-6347; E-mail: sales@acoustiblok.com; website: www.acoustiblok.com.

2.02 MATERIALS

Specifier Note: Retain panel(s) below to conform to project requirements. If more than one panel is retained, create designators and coordinate with drawings.

- A. All Weather Sound Panels:
 - 1. Type: [Industrial model] [Hurricane model].
 - 2. Size: [4 feet × 12 feet × 2.42 inches (1.22 × 3.66 m × 61 mm)] [4 feet × 10 feet × 2.42 inches (1.22 × 3.05 m × 61 mm)] [4 feet × 8 feet × 2.42 inches (1.22 × 2.44 m × 61 mm)] [4 feet × 6 feet × 2.42 inches (1.22 × 1.83 m × 61 mm)] [4 feet × 4 feet × 2.42 inches (1.22 × 1.22 m × 61 mm)] [_____].

Specifier Note: Weights will vary slightly according to panel size.

- 3. Weight:
 - a. Standard Model 4 feet × 8 feet × 2.42 inches (1.22 × 2.44 m × 61 mm): 104 lb (47.17kg)
 - b. Other: [_____].
- 4. Fire Performance, UL 723:
 - a. Flamespread: 0.

- b. Smoke Developed: 0.
- 5. Acoustical Properties:
 - a. Noise Reduction, ASTM C423, ASTM E795:
 - 1) Noise reduction coefficient (NRC) not less than 1.0.
 - 2) Sound absorption coefficient not less than 1.12 at 500 hZ.
 - b. Sound Transmission, ASTM E90, ASTM E413:
 - 1) Sound transmission coefficient not less than 29.
 - 2) Sound transmission loss not less than 19dB at 40 hZ.
- 6. Uniform Static Air Pressure, TAS 202: 188 psf (not less than 270 mph).
- 7. Frame Construction: Welded 0.125 inch (3.18mm) corrosion resistant 6063-T5 aluminum with 18 corrosion resistant 6061-T5 aluminum flush 0.375 inch (9.54 mm) diameter mounting eyelets.
- 8. Facing: Corrosion resistant 5052-H32 aluminum.
 - a. Front: 0.040" (1.02 mm) perforated 5/32" (3.96mm) staggered 3/32" (2.39 mm) round holes.
 - b. Back: 0.032" (0.89 mm) solid sheet.
- 9. Finish: Mill finish.

2.03 ACCESSORIES

Specifier Note: Retain accessories below to conform to project requirements.

- A. Fasteners: As recommended by manufacturer.
- B. Mounting:
 - 1. 3" (76 mm) I-beam, aluminum, 25' (7.6 m), Acoustiblok # 3ALUMIBEAM.
 - 2. 3 1/4" x 2 3/4" (83 x 70 mm) aluminum tee bar, Acoustiblok # TBARHP.

Specifier Note: Specify filter for projects in high dust environments.

- C. Filter: Stainless steel screen.

2.04 PRODUCT SUBSTITUTIONS

- A. No substitutions permitted.

PART 3 EXECUTION

Specifier Note: Paragraph below is an addition to CSI *SectionFormat* and a supplement to MANU-SPEC. Retain or delete paragraph below per project requirements and specifier's practice.

3.01 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

3.02 EXAMINATION

- A. Site Verification of Conditions: Verify that conditions of substrates previously installed under other sections are acceptable for product installation in accordance with manufacturer's instructions.

3.03 CLEANUP

- A. Proceed in accordance with Section [01 74 23 - Final Cleaning] [_____].
- B. Upon completion and verification of performance of installation, remove surplus materials, rubbish, tools and equipment.

END OF SECTION

All Weather Sound Panel Hurricane and Industrial Models Test Index

Test Report	Rating	Description
A07-180 Riverbank Acoustical Laboratories	NRC 1.0	Noise Reduction Coefficient (NRC) Absorption Acoustical Test
TL07-365 Riverbank Acoustical Laboratories	STC 29	Sound Transmission Class (STC) Barrier Acoustical Test
Hurricane Engineering & Testing Inc	188psf (~271mph / 436kmh)*	Uniform Static Air Pressure Test (Wind Load) *8ft (2.44m) Hurricane Model Tested
07CA57156 / SV17128 Underwriters Laboratories (UL)	Flame Spread (FSI): 0 Smoke Development (SDI): 0	Class A Fire Rating U.L. Standard 723 Fire Tested



RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

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TEST REPORT

FOR: Acoustiblok, Inc.
Tampa, FL

Sound Absorption Test
RAL™-A07-180

ON: Acoustiblok Hurricane Model All Weather Sound Panel

Page 1 of 4

CONDUCTED: 15 November 2007

TEST METHOD

The test method conformed explicitly with the requirements of the ASTM Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method: ASTM C423-07a and E795-05. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure (NVLAP Lab Code: 100227-0). A description of the measuring procedure and room qualifications is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as Acoustiblok Hurricane Model All Weather Sound Panel. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.44 m (96 in.) long and 64 mm (2.5 in.) thick. The specimen consisted of two (2) pieces. Each piece was 1.22 m (48 in.) wide by 2.44 m (96 in.) long. The specimen was tested in the laboratory's 292 m³ (10,311 ft³) test chamber.

The manufacturer's description of the specimen was as follows: Acoustiblok Hurricane Model All Weather Sound Panel: Part #HAWSP48: Frame Materials: Welded 6063-T5 Aluminum, 0.125" thick with 18 - 6061-T5 Aluminum 0.375" id Mounting Eyelets. Face Material: 5052-H32 Aluminum 0.040" thick, Perforated 3/32" round holes staggered on 5/32" centers. Back Material: 5052-H32 Aluminum 0.032" thick solid sheet. Internal Components Composite: 2" Acoustiblok Absorption Core with a layer of 16 oz. Acoustiblok Sound Isolation Membrane on the back side. A visual inspection verified the manufacturer's description of the specimen.

The weight of the entire specimen as measured was 98.9 kg (218 lbs), an average of 16.6 kg/m² (3.4 lbs/ft²). The area used in the calculations was 5.9 m² (64 ft²). The room temperature at the time of the test was 21°C (70°F) and 60±1% relative humidity.

MOUNTING A

The test specimen was laid directly against the test surface. The perimeter was sealed using metal framing.

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THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



NVLAP Lab Code 100227-0

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TEST REPORT

Acoustiblok, Inc.

RAL™-A07-180

15 November 2007

Page 2 of 4

TEST RESULTS

1/3 Octave Center Frequency (Hz)	Absorption Coefficient	Total Absorption In Sabins
100	0.42	26.79
** 125	0.36	22.98
160	0.45	28.54
200	0.65	41.63
** 250	0.82	52.77
315	1.03	65.61
400	1.10	70.28
** 500	1.12	71.41
630	1.10	70.62
800	1.06	68.02
** 1000	1.04	66.61
1250	1.03	65.81
1600	1.02	65.23
** 2000	1.00	63.94
2500	1.00	64.06
3150	1.00	64.10
** 4000	1.04	66.81
5000	1.06	67.97

SAA = 1.00

NRC = 1.00

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TEST REPORT

Acoustiblok, Inc.

RAL™-A07-180

15 November 2007

Page 3 of 4

TEST RESULTS (Continued)

The sound absorption average (SAA) is defined as a single number rating, the average, rounded to the nearest 0.01, of the sound absorption coefficient of a material for the twelve one-third octave bands from 200 through 2500 Hz, inclusive.

The noise reduction coefficient (NRC) is defined from previous versions of this same test method as the average of the coefficients at 250, 500, 1000, and 2000 Hz, expressed to the nearest integral multiple of 0.05.

Tested by Marc Sciaky
Marc Sciaky
Experimentalist

Approved by David L. Moyer
David L. Moyer
Laboratory Manager

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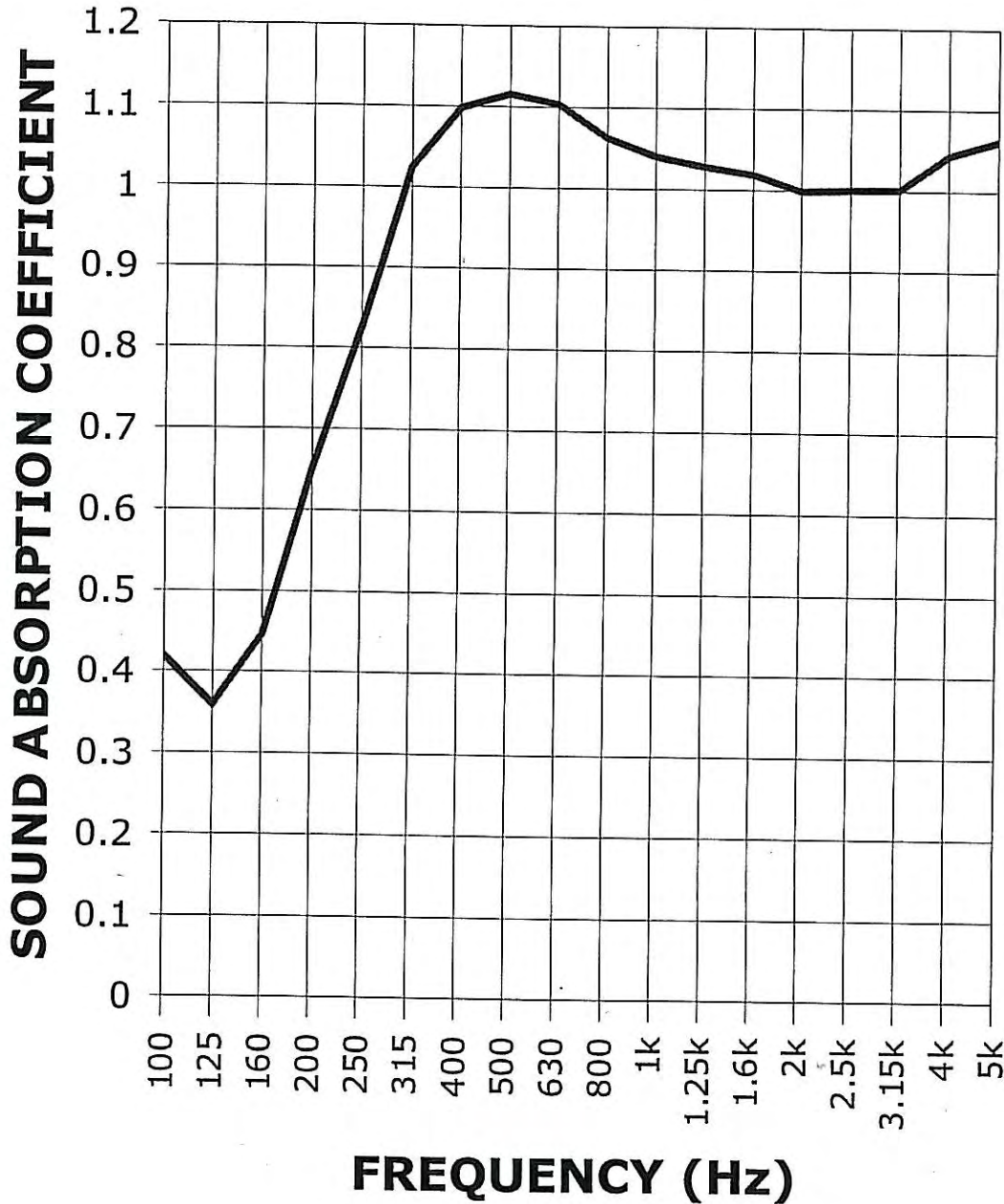
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TEST REPORT

SOUND ABSORPTION REPORT

RAL - A07-180

PAGE 4 OF 4



SAA = 1.00

NRC = 1.00

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NVLAP Lab Code 100227-0

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OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

Riverbank Acoustical Laboratories (RAL)TM / An Alion Science Technical Center
 Sound Absorption and Sound Absorption Coefficients
 by the Reverberation Room Method ASTM C 423-07/NVLAP 08/P03

TEST NUMBER: A07-180

TEST DATE: NOVEMBER 15, 2007

CLIENT: Acoustiblok
 DESIGNATION: Perforated Test Panels
 DIMENSIONS: 96" x 96" x 2.5"
 AREA: 64.0 ft²
 WEIGHT: 218 lbs AREA WEIGHT: 3.41 lbs/ft²
 MOUNTING: A EDGE SEAL: Steel
 SPECIMEN DETAILS: 2 @ 48" x 96" x 2.5"

TEST ROOM DETAILS: Room 0 Volume = 10311 ft³ Area = 2864.3 ft²
 FILE NAME: A07_180_071115_A.doc

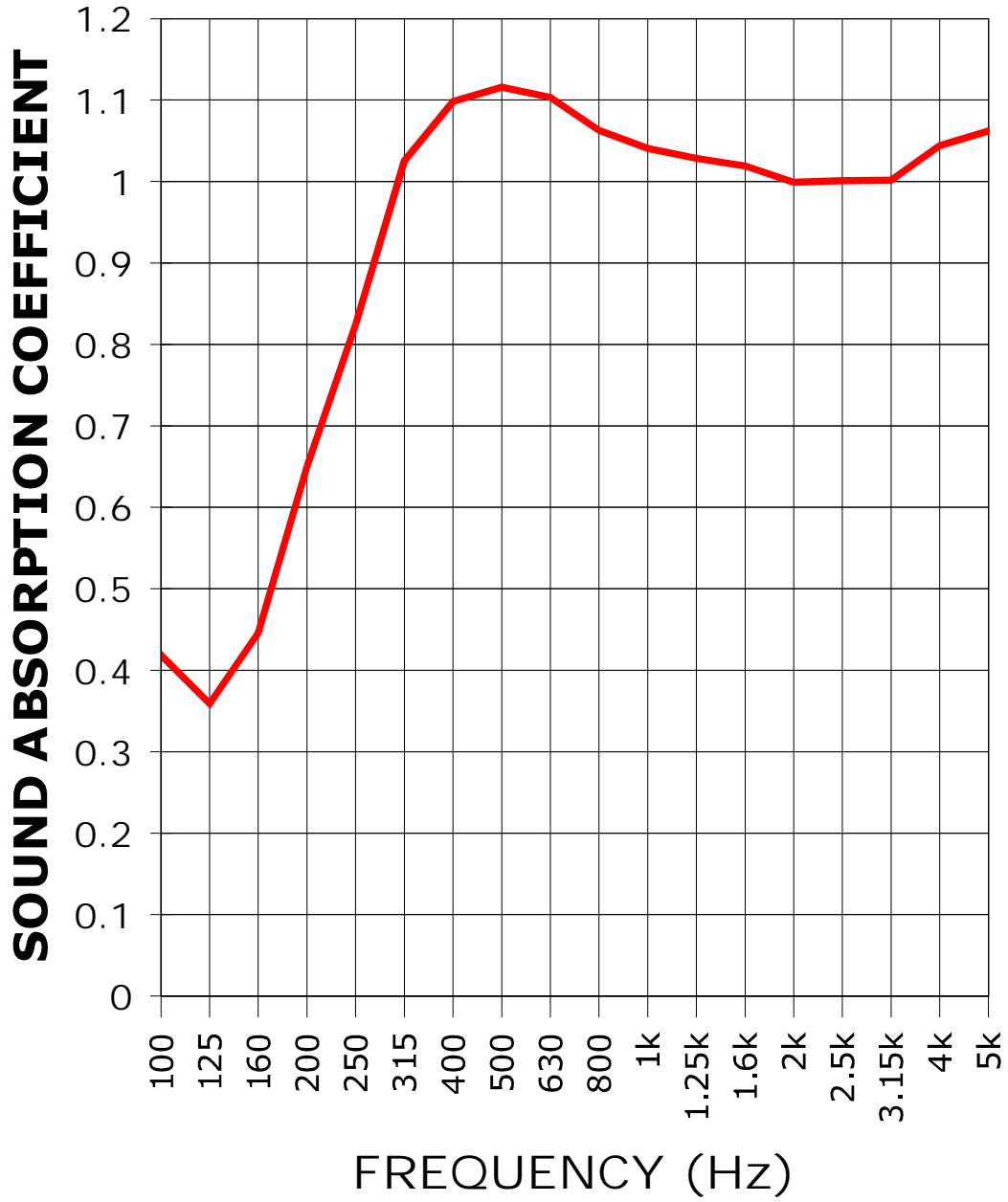
1/3 OCTAVE CENTER FREQ. (Hz)	ABSORPTION COEFFICIENT	TOTAL ABSORPTION (SABINS)
40	0.03	2.01
50	0.04	2.54
63	0.10	6.16
80	0.09	6.03
100	0.42	26.79
125	0.36	22.98
160	0.45	28.54
200	0.65	41.63
250	0.82	52.77
315	1.03	65.61
400	1.10	70.28
500	1.12	71.41
630	1.10	70.62
800	1.06	68.02
1000	1.04	66.61
1250	1.03	65.81
1600	1.02	65.23
2000	1.00	63.94
2500	1.00	64.06
3150	1.00	64.10
4000	1.04	66.81
5000	1.06	67.97
6300	1.09	69.47
8000	1.19	76.08
10000	1.18	75.65

SOUND ABSORPTION AVERAGE [SAA] = 1.00
NOISE REDUCTION COEFFICIENT [NRC] = 1.00

Test Conducted by: Marc Sciaky

This single report page and accompanying graph contain the instantaneous raw data as provided to the client after testing of the specimen. This data, although accurate, is incomplete without the full specimen description, mounting details and signature pages. The full report referenced by the RAL test number above should be consulted for further information regarding these results.

SOUND ABSORPTION REPORT
RAL - A07-180



SAA = 1.00
NRC = 1.00

Riverbank Acoustical Laboratories (RAL)TM / An Alion Science Technical Center

TEST NUMBER: A07-180 TEST DATE: NOVEMBER 15, 2007

CLIENT: Acoustiblok
DESIGNATION: Perforated Test PanelsTEST ROOM DETAILS: Room 0 Volume = 10311 ft³ Area = 2864.3 ft²

SPECIMEN DATA

1/3 OCTAVE CENTER FREQ. (Hz)	DECAY TIME FOR 60 dB IN SECONDS (Rt)	DECAY RATE (dB/s)	ABSORPTION (SABINS) (w/ANSI Temp./Humid Corrections)	% UNCERTAINTY WITH 95% CONF. LIMITS FOR ABSORP. OF REV. RM.
40	4.779	12.555	105.56	4.35
50	3.138	19.118	160.73	5.74
63	4.601	13.042	109.49	11.66
80	4.414	13.592	113.94	7.64
100	4.067	14.752	123.46	4.17
125	4.404	13.624	113.59	5.09
160	4.560	13.159	109.07	3.44
200	4.352	13.787	113.57	2.40
250	3.819	15.712	128.72	3.28
315	3.554	16.884	137.21	1.83
400	3.481	17.236	138.48	1.75
500	3.335	17.993	143.10	1.82
630	3.367	17.822	139.76	1.20
800	3.333	18.000	139.18	1.16
1000	3.276	18.315	139.63	1.21
1250	2.992	20.051	151.50	1.02
1600	2.851	21.049	155.67	0.89
2000	2.650	22.642	163.38	0.94
2500	2.460	24.389	169.43	0.83
3150	2.325	25.803	167.43	0.61
4000	2.103	28.527	167.57	0.60
5000	1.869	32.106	164.20	0.67
6300	1.573	38.145	160.92	0.68
8000	1.183	50.699	178.38	0.66
10000	.976	61.468	141.33	0.76

INPUTS:

PULSE PROGRAM TEMPLATE: Reverb_Rm0_Pre.plt	AVERAGING METHOD: Exponential
FREQUENCY RANGE: 40 Hz to 10000 Hz	AVERAGING TIME: 1/32 s
	OUTPUT INTERVAL: 34 ms
Environmental Conditions:	
START: 70°F 60% RH	NUM OF SPECTRA: 200
COMPLETION: 70°F 59% RH	APPROXIMATE DECAY TIME: 6.8 sec
NOTE: ANSI TEMP/HUMID CORRECTIONS USED	NUM OF MEASUREMENTS: 80
MINIMUM # OF POINTS: 24 at 5000 Hz	NUM OF GROUPS: 1
FILE NAME: A07_180_071115_A.doc	DELAY PROCESSING: Delay

Test Conducted by: Marc Sciaky

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

Alion Science and Technology

630/232-0104
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TEST REPORT

FOR: Acoustiblok, Inc.
Tampa, FL

Sound Transmission Loss Test
RAL™-TL07-365

ON: Acoustiblok Hurricane Model All Weather Sound Panel

Page 1 of 3

CONDUCTED: 16 November 2007

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-04 and E413-04, as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure (NVLAP Lab Code: 100227-0). A description of the measuring technique is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the client as Acoustiblok Hurricane Model All Weather Sound Panel. The overall dimensions of the specimen as measured were nominally 2.44 m (96 in.) wide by 2.44 m (96 in.) high and 64 mm (2.5 in.) thick. The specimen was installed directly into the laboratory's 2.74 m (9 ft) by 4.27 m (14 ft) wood-lined steel frame. A substantial filler wall was used in the remaining open area. Both the filler wall and test specimen were sealed on the periphery (both sides) with dense mastic.

The manufacturer's description of the specimen was as follows: Acoustiblok Hurricane Model All Weather Sound Panel: Part #HAWSP48: Frame Materials: Welded 6063-T5 Aluminum, 0.125" thick with 18 - 6061-T5 Aluminum 0.375" id Mounting Eyelets. Face Material: 5052-H32 Aluminum 0.040" thick, Perforated 3/32" round holes staggered on 5/32" centers. Back Material: 5052-H32 Aluminum 0.032" thick solid sheet. Internal Components Composite: 2" Acoustiblok Absorption Core with a layer of 16 oz. Acoustiblok Sound Isolation Membrane on the back side. A visual inspection verified the manufacturer's description of the specimen.

The weight of the specimen as measured was 98.9 kg (218 lbs.), an average of 16.6 kg/m² (3.4 lbs/ft²). The transmission area used in the calculations was 6 m² (64 ft²). The source and receiving room temperatures at the time of the test were 22±1°C (72±1°F) and 53±2% relative humidity. The source and receive reverberation room volumes were 178 m³ (6,298 ft³) and 177 m³ (6,255 ft³), respectively.

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THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



NVLAP Lab Code 100227-0

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TEST REPORT

Acoustiblok, Inc.

RAL™-TL07-365

16 November 2007

Page 2 of 3

TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the TL test data is within the limits set by the ASTM Standard E90-04.

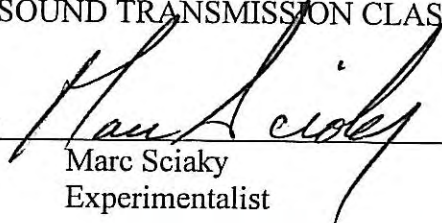
<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>	<u>FREQ.</u>	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
100	12	0.68		800	29	0.14	2
125	14	0.51		1000	34	0.13	
160	15	0.67	1	1250	38	0.11	
200	16	0.44	3	1600	40	0.12	
250	18	0.46	4	2000	40	0.10	
315	21	0.48	4	2500	43	0.11	
400	22	0.32	6	3150	47	0.05	
500	23	0.22	6	4000	50	0.05	
630	25	0.19	5	5000	47	0.06	

STC=29

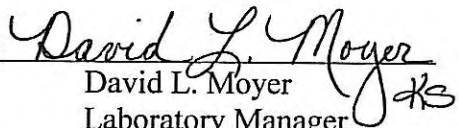
ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)
T.L. = TRANSMISSION LOSS, dB
C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT
DEF. = DEFICIENCIES, dB<STC CONTOUR (SUM OF DEF = 31)
STC = SOUND TRANSMISSION CLASS

Tested by


Marc Sciaky
Experimentalist

Approved by


David L. Moyer
Laboratory Manager

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NVLAP Lab Code 100227-0

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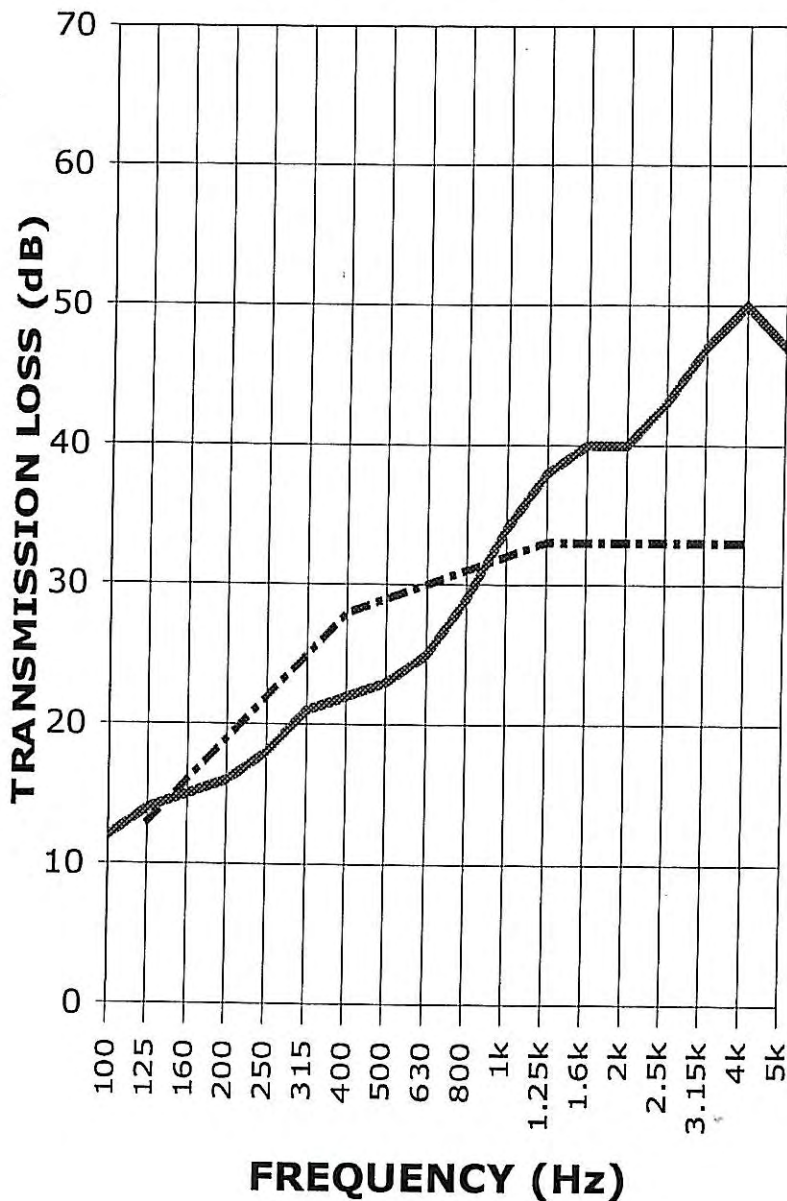
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TEST REPORT

SOUND TRANSMISSION REPORT
RAL - TL07-365

PAGE 3 OF 3



STC = 29



TRANSMISSION LOSS
SOUND TRANSMISSION LOSS CONTOUR

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Riverbank Acoustical Laboratories (RAL)TM / An Alion Science Technical Center
 Laboratory Measurement of Airborne Sound Transmission Loss
 of Building Partitions ASTM E 90-04/NVLAP 08/P06

TEST NUMBER: TL07-365 - B TEST DATE: NOVEMBER 16, 2007

CLIENT: Acoustiblok
 DESIGNATION: Perforated Test Panel

DIMENSIONS: 96" wide x 96" high x 2.5" thick
 AREA: 64.0 ft²
 WEIGHT: 218 lbs AREA WEIGHT: 3.41 lbs/ft²
 SPECIMEN DETAILS:

SOURCE ROOM: Room 2 Volume = 6297.6 ft³ Area = 2066.2 ft²
 RECEIVE ROOM: Room 1 Volume = 6254.5 ft³ Area = 2042 ft²
 FILE NAME: TL07_365_071116_B.doc

FREQ. (Hz)	T.L. (dB)	UNC. (dB) 95%CL	DEF. (dB) <CONT	FREQ. (Hz)	T.L. (dB)	UNC. (dB) 95%CL	DEF. (dB) <CONT
100	12	0.68		800	29	0.14	2
125	14	0.51		1k	34	0.13	
160	15	0.67	1	1.25k	38	0.11	
200	16	0.44	3	1.6k	40	0.12	
250	18	0.46	4	2k	40	0.10	
315	21	0.48	4	2.5k	43	0.11	
400	22	0.32	6	3.15k	47	0.05	
500	23	0.22	6	4k	50	0.05	
630	25	0.19	5	5k	47	0.06	

Sound Transmission Class (STC) = 29

Total Deficiencies = 31

Extended Frequency Data

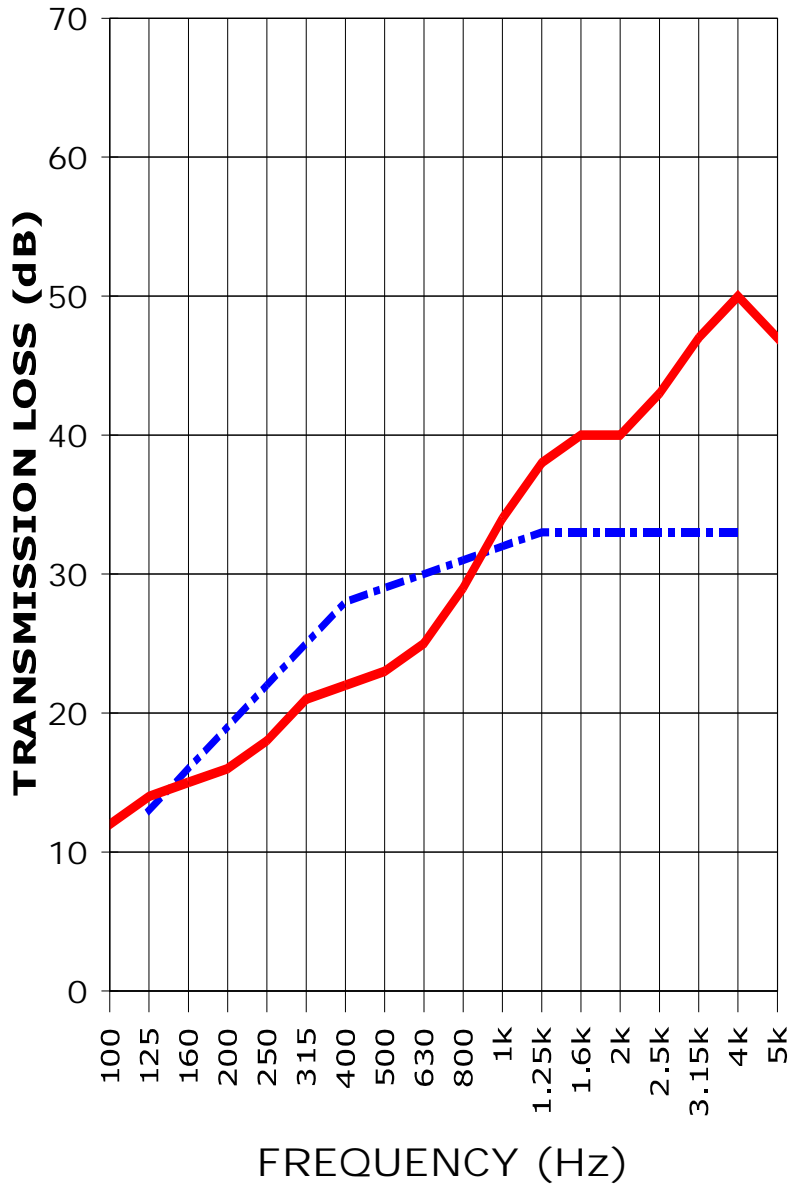
FREQ.	T.L.	UNC.	DEF.	FREQ.	T.L.	UNC.	DEF.
40	19	0.62		6.3k	51	0.10	
50	14	1.13		8k	52	0.11	
63	14	0.80		10k	54	0.10	
80	14	0.59					

R: 29
 OITC: 21

Test Conducted by: Marc Sciaky

This single report page and accompanying graph contain the instantaneous raw data as provided to the client after testing of the specimen. This data, although accurate, is incomplete without the full specimen description, mounting details and signature pages. The full report referenced by the RAL test number above should be consulted for further information regarding these results.

SOUND TRANSMISSION REPORT
RAL - TL07-365



FREQUENCY (Hz)

STC = 29



TRANSMISSION LOSS
SOUND TRANSMISSION LOSS CONTOUR

TEST NUMBER: TL07-365 - B TEST DATE: NOVEMBER 16, 2007

ASTM E90 RAW DATA ANALYSIS TLALCS

FREQ	FILL	+	AMB	*	SOR	-REC	=NR	+10 Log (Sc/A)	TLc	TLs	Abs	Unc w/95 % C.L.
40	NA		25.4		95.0	73.3	21.7	-2.7	19.0	19.0	119.2	0.62
50			28.6		95.9	80.4	15.5	-1.5	14.1	14.0	89.9	1.13
63			38.2		99.9	83.5	16.4	-2.0	14.4	14.0	102.4	0.80
80			34.7		99.4	84.0	15.5	-1.1	14.3	14.0	82.7	0.59
100			24.1		101.1	86.8	14.3	-2.3	12.0	12.0	109.5	0.68
125			29.4		100.9	85.7	15.2	-1.0	14.2	14.0	80.3	0.51
160			24.8		105.4	89.3	16.1	-1.2	14.8	15.0	85.3	0.67
200			24.6		102.0	85.9	16.1	-0.4	15.7	16.0	69.7	0.44
250			20.1		97.3	78.8	18.5	0.0	18.5	18.0	64.4	0.46
315			25.5		99.7	78.4	21.2	-0.1	21.2	21.0	65.0	0.48
400			18.2		100.0	77.9	22.2	0.1	22.3	22.0	62.2	0.32
500			15.8		98.2	74.7	23.4	-0.3	23.1	23.0	68.9	0.22
630			11.6		99.9	74.3	25.6	-0.4	25.2	25.0	69.9	0.19
800			15.4		98.5	69.1	29.3	-0.2	29.1	29.0	67.2	0.14
1k			12.6		97.1	62.9	34.1	-0.3	33.8	34.0	69.0	0.13
1.25k			10.5		99.2	60.6	38.6	-0.6	38.0	38.0	73.5	0.11
1.6k			8.5		99.0	58.7	40.3	-0.7	39.6	40.0	76.0	0.12
2k			7.9		99.2	58.5	40.7	-1.1	39.6	40.0	82.1	0.10
2.5k			9.8		101.7	57.7	44.0	-1.4	42.5	43.0	89.2	0.11
3.15k			8.6		101.8	53.2	48.5	-1.8	46.8	47.0	96.0	0.05
4k			9.3		100.4	48.2	52.2	-2.4	49.8	50.0	111.7	0.05
5k			11.5		97.8	47.5	50.3	-3.2	47.1	47.0	134.8	0.06
6.3k			10.4		94.5	39.5	55.1	-4.3	50.8	51.0	171.0	0.10
8k			10.5		93.1	35.8	57.3	-5.5	51.8	52.0	227.6	0.11
10k			10.7		91.2	30.5	60.7	-6.8	53.9	54.0	303.0	0.10

STC = 29 Def = 31

INPUTS:

PULSE PROGRAM TEMPLATE: TL_Sor2_Rec1_Pre-c.plt		AVERAGING TIME: 32 sec	
FREQUENCY RANGE: 40 Hz to 10000 Hz		NUM OF MEASUREMENTS: 5	
Environmental Conditions			
Source Room Start:	71°F 53 % RH	Receive Room Start:	72°F 53 % RH
Source Room Comp:	71°F 51 % RH	Receive Room Comp:	72° F 54 % RH
Source RUN Key:	TL07_365_S2_071116_B	Receive RUN Key:	TL07_365_R1_071116_B
		Ambient RUN KEY:	AMB1_071116_B
		SPECIMEN AREA:	64.0 ft²
FILE NAME:	TL07_365_071116_B.doc	FILLER WALL:	NA

'*' or '****' on right of AMB see Receive raw data

Test Conducted by: Marc Sciaky

HURRICANE ENGINEERING & TESTING INC.

Computer Controlled Product Testing & Design,
.....Wind Load Analysis

Uniform Static Air Pressure Test R & D Test

(TAS 202 for Cladding Assemblies)

February 28, 2008

REPORT NUMBER: **HETI-08-2011**

MANUFACTURER: Acoustiblok, Inc.
6900 Interbay Blvd, Tampa, FL 33617.

TEST LOCATION: Hurricane Engineering & Testing Inc.
6120 NW 97th Avenue, Miami, Florida 33178

LAB. CERTIFICATION No.: 07-0213.01 (MIAMI-DADE COUNTY, FLORIDA)
IAS. CERTIFICATION No.: TL-296
FBC ORGANIZATION No: TST1691
FBPE Certificate of Authorization Number: 6905

PRODUCT: Sound Panel.
PRODUCT SIZE: 98 7/8" x 50 15/16"

DRAWING NUMBER: *Sketch as attached as no formal Drawing was provided.*
NOTE: *HETI stamped drawing is an integral part of this report.*

DESIGN LOADS (psf): **+60, -60, and to Failure.**

TEST WITNESSED BY: Syed Waqar Ali, Ph. D. (HETI)
Dr. Nasreen K Ali, E. I. (HETI)
Mr. Candido F. Font, P.E. (HETI)



Construction Details

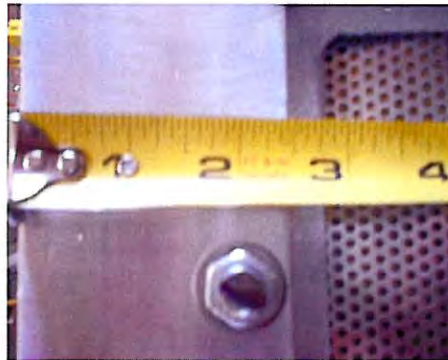
PRODUCT	Sound Panel
DESCRIPTION OF UNIT	
Model Designation	
Mounting Condition	<i>Inside Mount</i> (using 2x2 Aluminum Angles).
Overall Size	98 7/8" x 50 13/16"
Sound Panel Size	93 1/4" x 45 1/8".

Extrusions

Component	Overall Dimension (Inches)*	Wall Thickness (Inches)	Material
Perimeter Frame I Beam	3" x 2 1/2"	0.250	6063-T5
Inside and outside Mounting Angle	2" x 2"	0.125	6063-T5

Summary of Construction

The sound panel was constructed by using the I-Beam as indicated above and the sound panel was placed inside the I-Beam Frame and attached to the I-Beam frame using 6" 3/8" x 4" carriage bolts and a sleeve through the sound panel. (6) Bolts were used along the long side and (3) bolts were used along the short side.



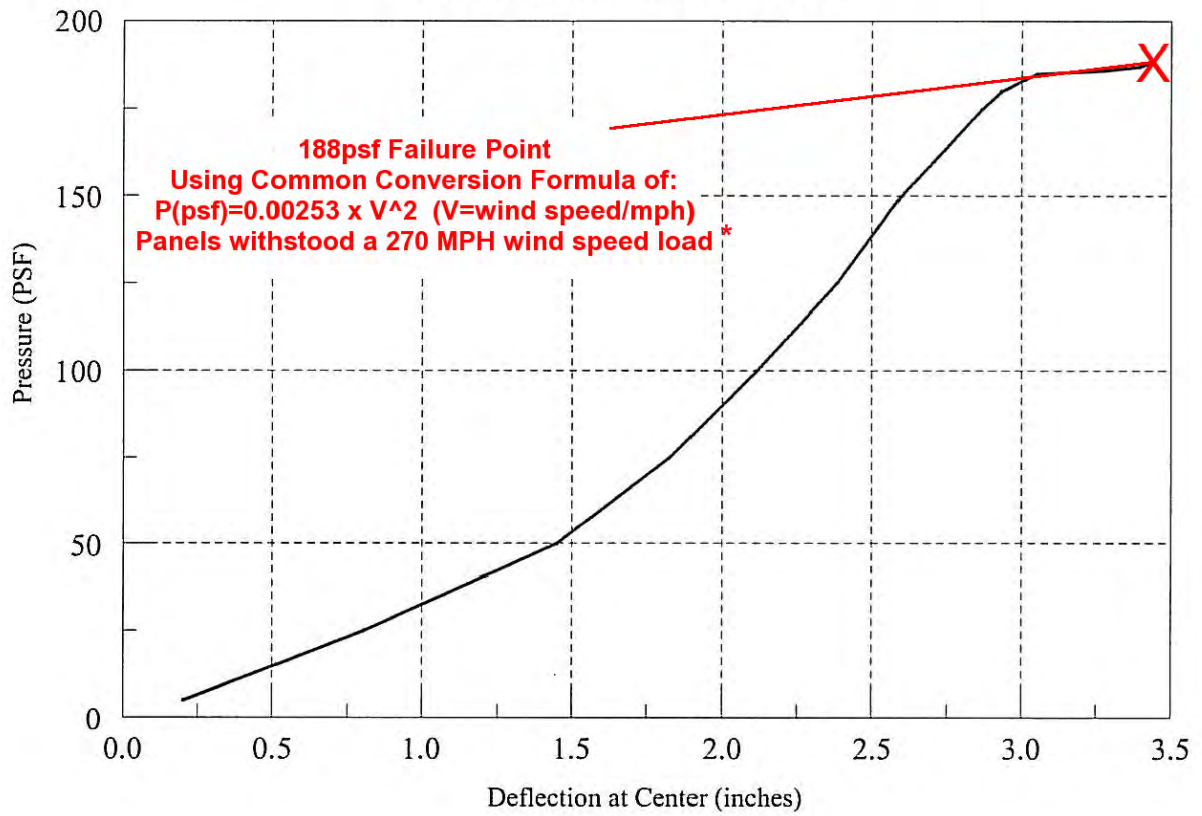
Test Results

Uniform Static Air Pressure Test Results

	Pressure (psf)	Center Deflection (inches)	Set (inches)	Recovery (%)	Duration (seconds)
Pressure applied to Grill side					
Half Test load	+45	2.52	0.107	95.7	30
Design load	+60	2.58	0.00	100	30
Test load	+90	3.22	0.00	100	30
Pressure Applied to Solid Side					
Half Test load	-45	0.64	0.0	100	30
Design load	-60	0.85	0.00	100	30
Test load	-90	1.28	0.00	100	30

Uniform Load Test was performed in accordance with ASTM E330-02. The Deflection gage was placed at the center of the specimen.

Sound Panel Static Wind Pressure Test to Failure
Acoustiblock, Inc.
(Reference: HETI-08-2011.106 at Hurricane Engineering & Testing, Inc.)
Pressure Applied to the Solid Surface



* Conversion reference added by Acoustiblok



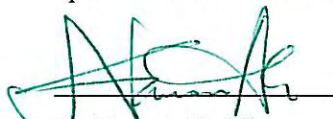
Conclusion

The sample was tested in accordance with FBC TAS 202, Miami-Dade County Test protocol PA 202, and ASTM E 330 with no deviations. The sample was tested to failure.

NOTE: The above results were obtained using the designated test methods, which indicates compliance with the performance requirements of the referenced specifications. This report does not constitute certification of the specimens tested.

STATEMENT OF INDEPENDENCE

The Hurricane Engineering & Testing, Inc., does not have, nor does it intend to acquire or will acquire, a financial interest in any company manufacturing or distributing products tested or labeled by the Hurricane Engineering & Testing, Inc. Hurricane Engineering & Testing, Inc., is not owned, operated or controlled by any company manufacturing or distributing products it test or labels.



Dr. Nasreen K. Ali
Vice President

January 14, 2008

Acoustiblok Inc
6900 Interbay Blvd
Tampa, FL 33616

Our Reference: SV17128/07CA57156

Subject: Report Of Surface Burning Characteristics Tests On Samples As
Submitted By Acoustiblok Inc

Dear Mark Nothstine

This is a Report summarizing the results of a test conducted under the Commercial Inspection and Testing Services (CITS) program identified as Assignment No. 07CA57156.

GENERAL:

The results relate only to items tested.

METHOD:

Each test was conducted in accordance with Standard ANSI/UL723, ninth edition, dated August 29, 2003, "Test for Surface Burning Characteristics of Building Materials" (ASTM E84-07).

The test determines the Surface Burning Characteristics of the material, specifically the flame spread and smoke developed indices when exposed to fire.

The maximum distance the flame travels along the length of the sample from the end of the igniting flame is determined by observation. The Flame Spread Index of the material is derived by plotting the progression of the flame front on a time-distance basis, ignoring any flame front recession, and using the equations described below:

- A. $CFS = 0.515 A_T$ when A_T is less than or equal to 97.5 minute-foot.
- B. $CFS = 4900/(195-A_T)$ when A_T is greater than 97.5 minute-foot.

Where A_T = total area under the time distance curve expressed in minute-foot.

The Smoke Developed Index (SDI) is determined by rounding the Calculated Smoke Developed (CSD) as described in UL 723. The CSD is determined by the output of photoelectric equipment operating across the furnace flue pipe. A curve is developed by plotting the values of light absorption (decrease in cell output) against time. The CSD is derived by expressing the net area under the curve for the material tested as a percentage of the area under the curve for untreated red oak.

The CSD is expressed as:

$$\text{CSD} = (A_m/A_{ro}) \times 100$$

Where:

CSD = Calculated Smoke Developed

A_m = The area under the curve for the test material.

A_{ro} = The area under the curve for untreated red oak.

SAMPLES:

The samples utilized in this investigation were neither prepared nor selected by a Laboratories' representative such that no verification of composition can be provided.

Sample Description

Test No.	System
1	Acoustical Panel

Due to the rigidity of the test samples, supplementary means of support was not required.

RESULTS:

The results are tabulated below are considered applicable only to the specific samples tested.

Data sheets and graphical plots of flame travel versus time and smoke developed versus time are also enclosed.

Table 1: Test Summary

Test No.	Test Code	Sample Description	CFS Calculated Flame Spread	FSI Flame Spread Index	CSD Calculated Smoke Developed	SDI Smoke Developed Index
1	01040811	Acoustical Panel	0	0	0.0	0

The Classification Marking of Underwriters Laboratories Inc. on the product is the only method provided by Underwriters Laboratories Inc. to identify products which have been produced under its Classification and Follow-Up Service. No use of a Classification Marking has been authorized as a result of this investigation.

Since the anticipated work has been completed, we have instructed our Accounting Department to terminate the investigation and invoice you for the charges incurred to date.

Should you have any questions, please contact the undersigned.

Very truly yours,



Gary Holmes (ext. 42255)
Associate Project Engineer
Fire Protection Division

Reviewed by:



James Smith (ext. 42666)
Staff Engineering Associate
Fire Protection Division

Underwriters Laboratories Inc.

Project: 07CA57156
Tested by: KNIGHTON
Employee #: 1291

File: SV17128
Engineer: HOLMES
Emp. #: 15910

Test Code: 01040811
Date: 01/04/08

TEST METHOD: The test was conducted in accordance with UL 723, 9th Edition

Client Name:	Acoustiblok Inc				
Test Duration	10 Minutes	Test No.:	1	Hot Test:	No
Mounting:	Self	Test Type:	CITS	Burn-Out Required:	No

Test Sample: Acoustical Panel

FLAME SPREAD RESULTS

No Ceiling Ignition
Calculated Flame Spread (CFS): 0
Flame Spread Index (FSI): 0

Time to Ignition (sec): 0
Maximum Flame Spread (ft): 0
Area Under the Flame Spread Curve (ft.-min): 0

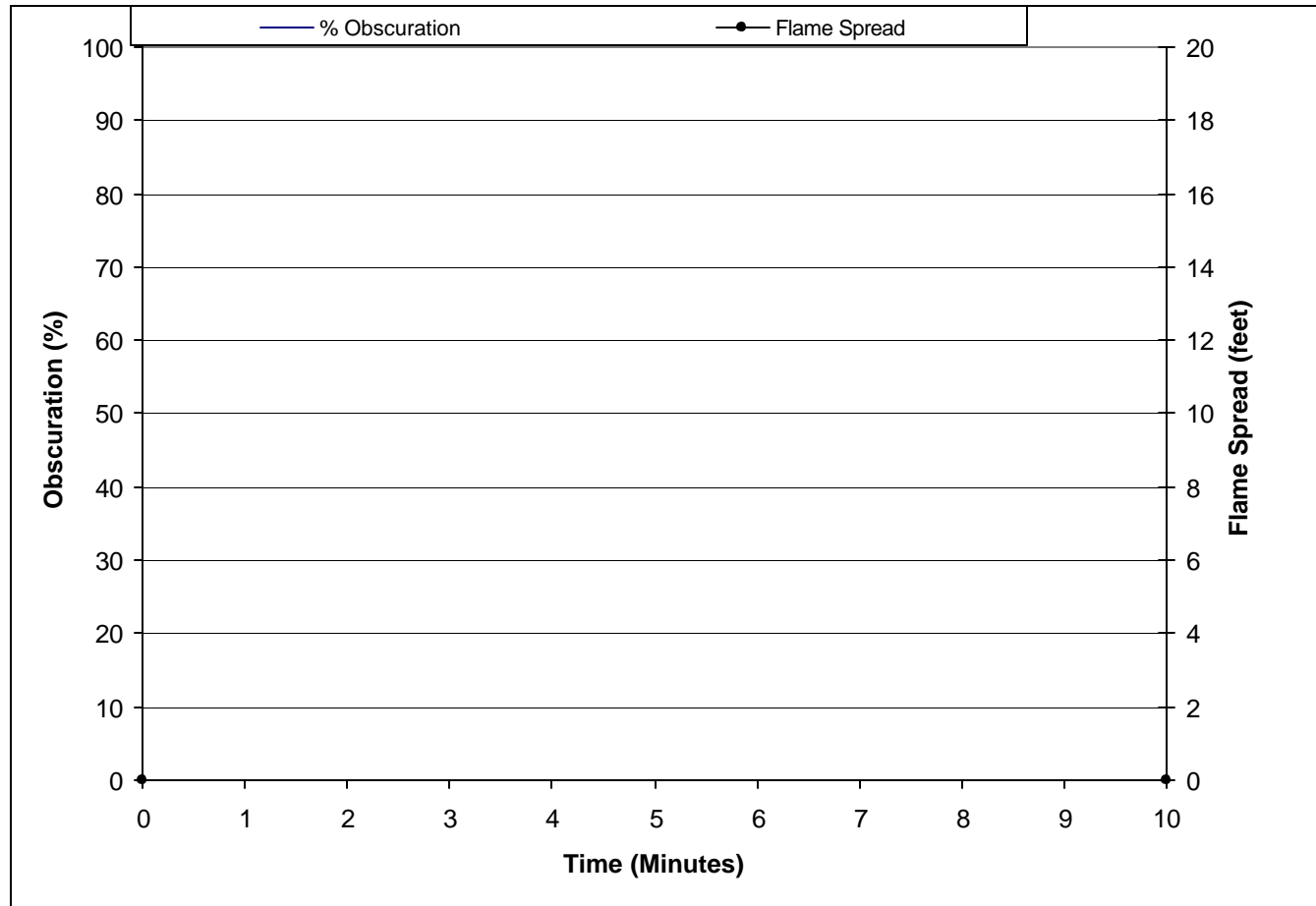
SMOKE RESULTS

Calculated Smoke Developed (CSD): 0.0
Smoke Developed Index (SDI): 0

Area Under the Smoke Curve (sq. in.): 0.00
Area Under Red Oak Curve (sq. in.): 87.42

Flame Spread / Smoke Results

Acoustiblok Inc
Acoustical Panel



Test No. 1
07CA57156 / SV17128
01040811

Flame Spread Index: 0
Smoke Developed Index: 0
Max. Flame Spread: 0