



1. Product Name

Acoustiblok® Sound Isolation Material and Acoustiblok All Weather Sound Panels™

2. Manufacturer

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

3. Product Description

BASIC USE

Acoustiblok offers high performance sound reduction solutions for multifamily projects, condominiums, hotels, hospitals, construction sites, industrial areas and other projects where privacy and sound control are important.

Acoustiblok® Sound Isolation Material
 Acoustiblok is a heavy, yet very flexible viscoelastic polymer material that provides sound reduction through a unique adiabatic process. Rather than attempting to block or absorb sound, Acoustiblok transforms sound energy into inaudible friction energy as the material flexes from sound waves. A layer 1/8" (3 mm) thick in a single stud wall assembly (STC 53) can provide more sound reduction than 12" (305 mm) of poured concrete (STC 51). Acoustiblok is UL classified for wall, floor and ceiling fire-rated assemblies, and is nailed or stapled to wood framing or screwed to metal framing prior to drywall, ceiling or floor installation.

Acoustiblok All Weather Sound Panels™
 Acoustiblok All Weather Sound Panels, with an inner layer of Acoustiblok Sound Isolation Material, are designed to withstand hostile indoor or outdoor environments. With a NRC rating of 1.0, these rigid framed sound panels not only absorb extreme levels of sound, but also block sound and have an STC rating of 29 with only a 2.4" (61 mm) panel thickness.

Acoustiblok All Weather Sound Panels are easily installed and easily moved. They resist sun, water, dirt, UV and mold and are suitable for indoor and outdoor high energy noise



Acoustiblok is easy to install — requires no special tools or labor.

applications: roadway, railway, HVAC, gymnasiums, construction, engine and generator rooms and many other industrial projects.

COMPOSITION & MATERIALS

Acoustiblok Sound Isolation Material
 Acoustiblok Sound Isolation Material is a 1/8" (3 mm) or 1/4" (6 mm) thick proprietary viscoelastic polymer with a high density mineral content.

Acoustiblok All Weather Sound Panels
 Acoustiblok All Weather Sound Panels are constructed of a specially engineered 2" (51 mm) thick weather resistant sound absorbing material and a layer of Acoustiblok Sound Isolation Material. They are framed of corrosion resistant aluminum and have acoustically transparent perforated aluminum front sides and solid aluminum back sides.

SIZES

- Acoustiblok Sound Isolation Material
- 1/8" (3 mm), 1 lb/ft² (4.88 kg/m²); available in rolls 4.5' (1.4 m) wide x 30', 60' or 350' (9, 18 or 107 m) long
 - 1/4" (6 mm), 2 lb/ft² (9.76 kg/m²); available in rolls 4.5' wide x 100' long (1.4 m wide x 31 m long)

Acoustiblok All Weather Sound Panels
 Standard stock sizes:

- 4' x 12' x 2.42" (1.22 x 3.66 m x 61 mm)
- 4' x 10' x 2.42" (1.22 x 3.05 m x 61 mm)
- 4' x 8' x 2.42" (1.22 x 2.44 m x 61 mm)
- 4' x 6' x 2.42" (1.22 x 1.83 m x 61 mm)
- 4' x 4' x 2.42" (1.22 x 1.22 m x 61 mm)

Custom sizes are also available.

BENEFITS

- Acoustiblok Sound Isolation Material
- Effectively reduces interior sound levels per certified independent lab sound tests
 - UL classified for over 300 fire-rated assemblies, including all U300, U400, V400 and L500 wall, floor and ceiling assemblies
 - Easy to install - Can be cut with a utility knife and requires no special tools or labor
 - Water, dirt, corrosion and UV resistance allows installation in a variety of applications
 - Per ASTM D3273/3274, Acoustiblok achieved the highest possible score for mold and mildew resistance, earning a rating of 10 for no fungal growth

- Acoustiblok All Weather Sound Panels
- Not only absorb sound (NRC 1.0), but also block sound (STC 29)
 - Durable, solid construction withstands harsh indoor and outdoor environments
 - Easily installed and moved - Need not be a

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freeze at -40 degrees F (-40 degrees C). Do not unroll material at this temperature or below, as the material will crack. Freeze and thaw cycles do not affect the physical or acoustic properties of Acoustiblok.

For optimum results, maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by the manufacturer and do not install the product under conditions outside absolute limits of the manufacturer.

ACCESSORIES

- Acoustigrip™ Tape
- Acoustiblok Acoustical Sound Sealant
- Acoustiputty™ Sound Sealant pads
- Acoustipad™ for carpeted floors
- Acoustiwool™-WFO.125 for wood floors
- Acoustiwool™-TF0.11 for tile floors
- Thermablok™ Thermal Acoustic Isolation Strips
- Acoustifence

4. Technical Data

APPLICABLE STANDARDS

ASTM International

- ASTM C423 Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
- ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester

Acoustiblok provides tremendous sound reduction between rooms.

permanent installation

- Washable with a hose and soapy water
- Resistant to water, sun, dirt, mold and UV rays
- Can be mounted to a permanent surface or can be assembled as a freestanding temporary enclosure

LIMITATIONS

Acoustiblok Sound Isolation Material must be clean and dry for installation. Exposure of Acoustiblok Sound Isolation Material to sunlight is permissible. Do not permit the material to be creased, cut or punctured.

Acoustiblok Sound Isolation Material will

TABLE 1 PHYSICAL AND TECHNICAL PROPERTIES			
	Acoustiblok Sound Isolation Material: 1/8" (3 mm)	Acoustiblok Sound Isolation Material 1/4" (6 mm)	All Weather Sound Panels (Standard Size Panels)
Size	Width 54" ± 0.125" (1.4 m ± 3.2 mm) Thickness 0.11" ± 0.03" (2.8 ± 0.8 mm) Rolls 30', 60', 350' (9, 18, 107 m)	Width 54" ± 0.125" (1.4 m ± 3.2 mm) Thickness 0.22" ± 0.03" (5.6 ± 0.8 mm) Rolls 100' (31 m)	4' x 12' x 2.42" (1.22 x 3.66 m x 61 mm) 4' x 10' x 2.42" (1.22 x 3.05 m x 61 mm) 4' x 8' x 2.42" (1.22 x 2.44 m x 61 mm) 4' x 6' x 2.42" (1.22 x 1.83 m x 61 mm) 4' x 4' x 2.42" (1.22 x 1.22 m x 61 mm)
Weight	Per 30' roll (9 m): Approx. 150 lb (68 kg) Per 60' roll (18 m): Approx. 280 lb (127 kg) Per 350' roll (107 m): Approx. 1600 lb (726 kg)	Per 100' (31 m) roll: 900 lb (409 kg)	12' (3.66 m) panel: 165 lb (74.8 kg) 10' (3.05 m) panel: 135 lb (61.2 kg) 8' (2.44 m) panel: 104 lb (47.2 kg) 6' (1.83 m) panel: 75 lb (34.0 kg) 4' (1.22 m) panel: 45 lb (20.4 kg)
Color	Black	Black	Aluminum mill finish, field paintable
Acoustical properties, ASTM E90, ASTM E413, ASTM C423, ASTM E795	STC 26	STC 32	NRC 1.0/STC 29
Environmental properties	Heat tolerance 200 degrees F (93 degrees C) for 7 days - less than 1% shrinkage, no deformation; freezes at -40 degrees F (-40 degrees C); UV resistant; ASTM D3273/3274, rating = 10	See 1/8" (3 mm) Acoustiblok	Capable of withstanding outdoor exposure in full sunlight and weather; UV tolerant
Uniform static air pressure, TAS 202			Rated for winds to 270 mph (435 kph)
Fire-rated properties	UL classified for use in U300, U400, V400, L500 fire-rated wall, floor, ceiling designs		UL 723 - Class A Flamespread - 0 Smoke development - 0



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Acoustiblok All Weather Sound Panels™ solve indoor and outdoor noise pollution problems.

- ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
- ASTM D3274 Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation
- ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- ASTM E413 Classification for Rating Sound Insulation
- ASTM E492 Standard Test Method for Laboratory Measurement of Impact Sound Transmission through Floor-Ceiling Assemblies Using the Tapping Machine
- ASTM E795 Standard Practices for Mounting Test Specimens During Sound Absorption Tests
- ASTM E989 Standard Classification for Determination of Impact Insulation Class (IIC)

Florida Building Code Testing Application Standard (TAS) - TAS 202 Criteria for Testing Impact & Nonimpact Resistant Building Envelope Components Using Static Uniform Air Pressure

Underwriters Laboratories, Inc. (UL)

- UL 723 Tests for Surface Burning Characteristics of Building Materials
- UL 263 Fire Tests of Building Construction and Materials

APPROVALS

Underwriters Laboratories, Inc. (UL) File # R21490

PHYSICAL/CHEMICAL PROPERTIES

See Table 1.

Mold and Mildew Resistance

When tested by an independent laboratory per ASTM D3273/3274, Acoustiblok achieved a score of 10, the best possible score for this test.

FIRE PERFORMANCE

Acoustiblok All Weather Sound Panels have the following fire performance properties when tested to UL 723:

- Flamespread - 0
- Smoke developed - 0

Acoustiblok Sound Isolation Material is UL classified for use in all U300, U400, V400, L500 fire-rated wall, floor and ceiling designs per UL 263 testing.

5. Installation

PREPARATORY WORK

Installation of Acoustiblok should be in accordance with methods described by the manufacturer. The information here is a general overview. Refer to individual product and assembly installation instruction sheets for complete detailed procedures.

Handle and store this product according to Acoustiblok recommendations. Ensure that the material is clean and dry.

Deliver and store this product protected from exposure to extreme or harmful environmental conditions and at the temperatures and humidity conditions recommended by the manufacturer.

With the exception of common hand tools, the materials and tools required for Acoustiblok installation are available from Acoustiblok, Inc.

Acoustiblok Sound Isolation Material

Because Acoustiblok is a heavy, high density product, a minimum of 2 installers should be available for preparation and installation.

Do not begin installation until substrates have been properly prepared. Whenever possible, Acoustiblok should be installed on the noise side of the assembly to help minimize the amount of acoustical energy that is converted into mechanical noise.

Acoustiblok can be cut with a utility knife and a straight edge. Stapling or nailing with a roof cap is an easy way to attach Acoustiblok to wood studs, ceiling joists or furring strips. For metal studs, use self-tapping wafer head-screws with tin roof caps or a wafer head screw. For floors, spot gluing is adequate.

The most effective sound barrier is one that expends the acoustical energy through an adiabatic process. Acoustiblok is most effective when it is allowed to flex, so leave it slightly loose or limp (not pulled tight like a drum head) between the framing and assembly finish, i.e., between the studs and the dry-wall or joist and subfloor. Acoustiblok also provides decoupling of the solid mechanical linkage between materials, which is a major contributor of sound transmission to other areas.

Acoustiblok All Weather Sound Panels

Several panel installation methods are available:

- Install between standard 3" (76 mm) I-beams or T-beams
- Bolt together or use stainless steel wire ties for self-supporting installations
- Fasten through mounting eyelets to wall surface
- Hang from mounting eyelets in frame

Before installing, examine substrates and conditions for compliance with requirements and installation tolerances. Proceed with installation only after all conditions are satisfactory.

The sound absorbing side of the panel is the perforated aluminum side. This side is always installed facing the noise source.

BUILDING CODES

Current data on product compliance with building code standards can be obtained from Acoustiblok technical support specialists.



Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost

AVAILABILITY

Acoustiblok products are available internationally.

COST

Cost information may be obtained from the manufacturer or an Acoustiblok distributor.

7. Warranty

Complete warranty terms and conditions are available from the manufacturer. For details, consult Acoustiblok, Inc.

8. Maintenance

No specific care or maintenance is required for properly installed products.

9. Technical Services

Detailed information, product literature, test results, project lists, assistance in preparing project specifications and arrangements for application supervision are available through Acoustiblok, Inc.

10. Filing Systems

- MANU-SPEC®
- Additional product information is available from the manufacturer upon request