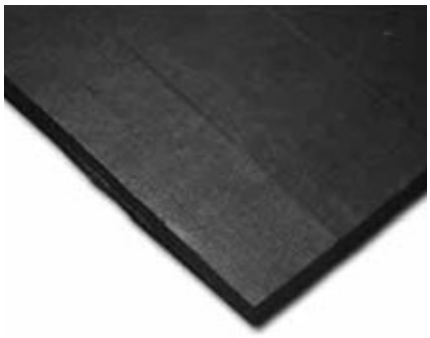
OWENS CORNING®

INNOVATIONS FOR LIVING™

09 81 13.16.OCC
SelectSound®
Black Acoustic Board Insulation

Product Data Sheet



PRODUCT DESCRIPTION

SELECTSOUND Black Acoustic Board is a semi-rigid all black glass fibre product with a black glass fibre mat surface on one side. The black surface is ideal for eliminating screen light reflections and preventing insulation from showing through most surface treatments. It is dimensionally stable and will not shrink or warp. It will not rot or mildew and is non-corrosive to steel, copper and aluminium.

Depending on specified thickness, *SELECTSOUND* Black Acoustic Board absorbs up to 100% of the sound energy striking its surface. It helps provide the highest quality audio reproduction by reducing sound reverberation within spaces. Sound transfer from space to space is also noticeably reduced.

Recommended Uses

SELECTSOUND Black Acoustic Board provides excellent acoustical performance for walls in museums, churches, multiplex cinemas, recording studios, performing arts centres and sports complexes.

SELECTSOUND Black Acoustic Board can be installed on drywall, concrete block, precast concrete, using impaling pins or appropriate adhesives.

When installing insulation with adhesive, follow adhesive manufacturers recommendations for surface preparation and pattern.

When using impaling pins, follow the pin manufacturers recommendations for surface preparation, location and amount of pins. Pin length should be selected to ensure a tight fit. Where subject to physical contact, protect pin tips.

Limitations

Owens Corning Canada Inc. does not recommend using *SELECTSOUND* Black Acoustic Board in the following locations:

- In locations where insulation might be compressed when installed or by passers-by to a point where it would reduce its acoustic performance.
- Where it is impossible to provide clearances required by Codes and Regulations (building, electrical, gas and oil) between the required acoustic insulation and heat-emitting appliances, chimneys, pipes, conduits and vents to these appliances (at least 50 mm) and between insulation and recessed light fixtures which are not encased in "IC" rated, CSA-approved insulated ceiling boxes (at least 75 mm).

Components

Inorganic glass fibres, black colour (product core), faced with a black glass fibre mat on one side.

Includes materials that contribute to the reduction of dust and static electricity, ensuring a clean and easy installation.

TECHNICAL DATA

Applicable Codes and Standards

Canadian Standards (Underwriters Laboratories of Canada (ULC))

- CAN/ULC-S102.2, Standard Method of Test for Surface Burning Characteristics of BUILDING Materials and Assemblies

American Standards

- ASTM C165 - Test for Measuring Compressive Properties of Thermal Insulations
- ASTM C303 - Standard Test Method of Dimensions and Density of Preformed Block and Board-Type Thermal Insulation
- ASTM C423 - Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method
- ASTM C665 - Standard Specification for Mineral - Fiber Board Thermal Insulation for Light Frame Construction and Manufactured Housing
- ASTM C553, Type I - Specification for Mineral Fiber Board Thermal Insulation for Commercial and Industrial Applications
- ASTM C1104 - Test Method for Determining the Water Vapor Sorption of Unfaced Mineral Fiber Insulation
- ASTM C1338 - Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings
- ASTM E84 - Surface Burning Characteristics of Building Materials

Health Canada/Workplace Hazardous Materials Information System (WHMIS). Visit www.owenscorning.ca for a current copy of the Material Safety Data Sheet (MSDS) for "SELECTSOUND Acoustic Board".

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TABLE 1 Physical Properties

Properties	Test Method	*SELECTSOUND Black Board*
Minimum compressive strength - at 10% deformation - at 25% deformation	ASTM C165	 1197 kPa (25 lbs/ft2) 4309 kPa (90 lbs/ft2)
Water vapour absorption (% in weight)	ASTM C1104	<3% at 49°C (120° F), 95% R.H.
Resistance to mildew	ASTM C1338	Complies
Nominal Density	ASTM C303	48 kg/m3 (3,0 lbs/ft3)
Corrosiveness	ASTM C665, Corrosion Test	Will not corrode aluminium or steel [1]
Surface burning characteristics	UL 723 or CAN/ULC-S102-M [2]	Flame spread: 25 Smoke developed: 50

[1] When wet, facing in contact with galvanized steel may cause discolouration of sheet steel.

[2] Surface burning characteristics have been determined in accordance with UL 723 and CAN/ULC-S102 M. These standards should be used to measure and describe the properties of materials, products or assemblies exposed to heat and flames in laboratory controlled conditions. They should not be used to describe or to evaluate the fire risk of materials, products or assemblies in real conditions. These test results may however be used to evaluate a fire risk when taking into account all pertinent factors involved for a particular application. Values have been rounded to the nearest multiple of 5. *SELECTSOUND Black Acoustic Board* meets the criteria of ASTM C553, Type 1, for service temperatures up to 121°C (250°F).

TABLE 2 Acoustic Performance

Thickness mm (in)	Thermal Resistance (R) (ASTM C518)	Density kg/m³ (lbs/ft³)	Octave band centre frequencies (Hz)						Noise Reducton Coefficient NRC [1]
			125	250	500	1000	2000	4000	
25 (1)	4.3	48 (3.0)	0.06	0.25	0.62	0.91	0.99	0.98	0.70
51 (2)	8.6		0.18	0.71	1.12	1.12	1.03	1.02	1.00

[1] Data were obtained using a limited number of samples and do not constitute absolute values; acceptable tolerances should therefore be provided. Tests were performed according to ASTM C423, using Type A apparatus (material tested placed against a solid support, for example a concrete masonry unit wall). Owens Cornings acoustic laboratory that performed the tests is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

IDENTIFICATION AND SIZES

Package Identification

Each package of insulation must be adequately identified and include any necessary user safety information and any additional information required by applicable Codes and Regulations.

Available Sizes

48 in. x 96 in. x 1 in. and 2 in. thick boards (1219 mm x 2438 mm x 25 mm and 51 mm thickness).

APPLICATION

Safety Measures: Applicator Protection

Ensure applicators personnel wears protection equipment such as breathing masks (dust-proof type masks prescribed in Material Safety Data Sheet), face and eye protection (safety goggles or eye glasses) and skin protection (gloves, long-sleeved shirts and pants). Consult the Product Safety Data Sheet (MSDS) (see above).

Preparation

Ensure surfaces to be covered by acoustic boards have been inspected, notably:

- support materials solidity and planarity;
- mechanical, electrical and telecommunications service lines passing in or through voids in partitions and walls acting as supports; and
- mechanical, electrical and telecommunications service lines installed above ceilings or under raised flooring used as plenums.

Installation

Carefully adjust acoustic boards horizontally and vertically to obtain tight joints between each board and around electrical service boxes, piping, air ducts and framing passing through.

Fastening to a vertical support:

- Impaling Pins: where no decorative screen is provided, use impaling pins with plastic or metal retaining plates. When using impaling pins follow the pin manufacturers recommendations for surface preparation, location and amount of pins. Pin length should be selected to ensure tight fit. Where subject to physical contact, protect pin tips.
- Adhesive: when installing insulation with appropriate adhesive, follow adhesive manufacturers recommendations for surface preparation.

Consult an Owens Corning Canada regional technical support representative for proper selection of pins and adhesives.

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Humidity

Wet insulation should be replaced or left to dry by providing an adequate air circulation. If the insulation is not compressed, it can recover to its initial thickness and regain its acoustical performance.

AVAILABILITY AND COST

Cost Estimates

Cost estimates are readily available from a physical description consisting of drawings and a brief specification based on the information contained in this Product Data Sheet.

For more information on product availability or costs, contact your regional technical support representative.

TECHNICAL SERVICES

Owens Corning Canada Inc. publishes many Technical Bulletins and offers in-depth consultation services and dew point analysis to help you select the appropriate products for your designs and prepare details, and specifications. For more information, contact your regional technical support representative.

QUALITY CONTROL

Owens Corning Canada Inc. regularly submits its products to independent agencies that certify their environmental quality in terms of:

- Toxic chemical and volatile particle emissions affecting indoor air quality and the ozone layer.
- Recycled materials content.

INFORMATION CLASSIFICATION SYSTEM

Architectural Specifications

Classification in accordance with MasterFormat™ 2004 (level 4) published by CSC-DCC and CSI. Selected number and title are **09 81 00.16 - Glass Fibre Acoustic Insulation.**

Data Sheet

Classification in accordance with MasterFormat 2004 (level 5) published by CSC-DCC and CSI.

Selected number **09 81 13.16.OCC SelectSound Board** corresponds to Owens Corning Canada (OCC) classification for *SELECTSOUND* Black Acoustic Board Insulation.

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