



Data Sheet

CI-BAB-DS

06-18

Black Acoustical Board

with ECOSE[®] Technology



Black Acoustical Board *with ECOSE® Technology*

DESCRIPTION

Knauf Insulation Black Acoustical Board with ECOSE Technology is a heavy-density mat-faced glass mineral wool board insulation bonded with ECOSE Technology. Its base board is brown with a black mat facing to give the airstream a smooth, tough surface, that resists damage during installation and operation.

ECOSE® TECHNOLOGY

ECOSE Technology is a revolutionary binder chemistry that enhances the sustainability of our products. The “binder” is the bond that holds our glass mineral wool product together and gives the product its shape and brown color. ECOSE Technology is a plant-based, sustainable chemistry that replaces the phenol/formaldehyde (PF) binder traditionally used in glass mineral wool products. Products using ECOSE Technology are formaldehyde-free and have reduced global warming potential when compared to our products of the past.

APPLICATION

Knauf Insulation Black Acoustical Board with ECOSE Technology is designed for use as acoustical insulation and/or a visual barrier on walls and ceilings, where system design requires a rigid product and where additional strength and abuse resistance are required. The black surface provides a visual barrier with an aesthetic appearance, in both wall and ceiling applications. The product is typically used where framing members are not present.

PRODUCT FEATURES

- Reduces airborne sound transmission
- Improves STC ratings of wall configurations
- Packaged in cartons that offer excellent protection from abuse, dust and moisture
- Cartons are unitized for easy handling and storage
- UL/ULC listed

SUSTAINABILITY

Knauf Insulation’s products used for thermal insulating purposes recover the energy that it took to make them in just hours or days, depending on the application. Once installed, the product continues to save energy and reduce carbon generation as long as it is in place.

Glass mineral wool insulation with ECOSE Technology contains three key ingredients:

- Recycled glass content, verified every six months by UL Environment
- Sand, one of the world’s most abundant resources
- Our green chemistry initiative ECOSE Technology, which is validated to be formaldehyde-free

INDOOR AIR QUALITY

- UL Environment
 - UL/ULC Classified
 - GREENGUARD Certified
 - GREENGUARD Gold certified
 - Validated to be formaldehyde-free
- Does not contain polybrominated diphenyl ethers (PBDE) such as Penta-BDE, Octa-BDE, or Deca-BDE
- Tested and certified to meet all requirements of EUCEB

APPLICATION & SPECIFICATION GUIDELINES

Storage

- Inside storage is recommended. Protect stored Black Acoustical Board from water damage or abuse. If stored outside, stack cartons on pallets and cover adequately to prevent moisture infiltration.

GLASS MINERAL WOOL AND MOLD

Glass mineral wool insulation will not sustain mold growth. However, mold can grow on almost any material when it becomes wet and contaminated. Carefully inspect any insulation that has been exposed to water. If it shows any sign of mold it must be discarded. If the material is wet but shows no evidence of mold, it should be dried rapidly and thoroughly. If it shows signs of facing degradation from wetting, it should be replaced. Air handling insulation used in the air stream must be discarded if exposed to water.

NOTES

The chemical and physical properties of Knauf Insulation Black Acoustical Board with ECOSE Technology represent typical average values determined in accordance with accepted test methods. The data is subject to normal manufacturing and testing variations. The data is supplied as a technical service and is subject to change without notice. References to numerical flame spread ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

When condensation is permitted to occur between nested Black Acoustical Board and galvanized steel panels, discoloration of the metal may occur.

Check with your Knauf Insulation Territory Manager to ensure information is current.

| Technical Data | | |
|--|--------------------------------|-------------------------|
| Property (Unit) | Test | Performance |
| Maximum Service Temperature | ASTM C411 | 250° F (121° C) |
| Mold Growth | ASTM C1338, G21, G22 | Pass |
| Water Vapor Sorption (by weight) | ASTM C1104 | 3% or less |
| Surface Burning Characteristics (flame spread/smoke developed) | ASTM E84, UL 723, CAN/ULC S102 | UL Classified FHC 25/50 |

| Sound Absorption Coefficients ASTM C423, Type A Mounting | | | | | | | | |
|--|-------------|--|------|------|------|------|------|------|
| Product | | Octave Band Center Frequency (cycles/sec.) | | | | | | |
| Density | Thickness | 125 | 250 | 500 | 1000 | 2000 | 4000 | NRC |
| 2.25 PCF (36 kg/m ³) | 2" (51 mm) | 0.26 | 0.62 | 1.05 | 1.07 | 1.04 | 1.05 | 0.95 |
| 3.0 PCF (48 kg/m ³) | 1" (25 mm) | 0.13 | 0.24 | 0.56 | 0.83 | 0.92 | 0.98 | 0.65 |
| | 1½" (38 mm) | 0.19 | 0.41 | 0.89 | 1.02 | 1.03 | 1.04 | 0.85 |
| | 2" (51 mm) | 0.33 | 0.67 | 1.07 | 1.07 | 1.03 | 1.06 | 0.95 |

| Forms Available* | | | | |
|----------------------------------|-------------|---------|-----------------|------------------|
| Density | Thickness | R-Value | Width | Length |
| 2.25 PCF (36 kg/m ³) | 2" (51 mm) | R-8.6 | 24" (610 mm) | 48" (1219 mm) |
| 3.0 PCF (48 kg/m ³) | 1" (25 mm) | R-4.3 | | |
| | 1½" (38 mm) | R-6.5 | | |
| | 2" (51 mm) | R-8.6 | | |

*Some products listed may be custom products. All custom product requests require approval from Knauf Insulation, regardless of whether the product has previously been produced. Special pricing and minimum order quantities will apply.

| Thermal Conductivity "C" ¹ and Resistance "R" ² ASTM C177 | | | |
|---|-------------|-----------------|----------------|
| Mean Temperature 75° F (24° C) | | | |
| Product | Thickness | Conductance "C" | Resistance "R" |
| 2.25 PCF (36 kg/m ³) | 2" (51 mm) | 0.11 (0.62) | 8.7 (1.53) |
| 3.0 PCF (48 kg/m ³) | 1" (25 mm) | 0.23 (1.31) | 4.3 (0.76) |
| | 1½" (38 mm) | 0.15 (0.85) | 6.5 (1.15) |
| | 2" (51 mm) | 0.11 (0.62) | 8.7 (1.53) |
| ¹ C Units" $\frac{\text{BTU}}{\text{ft}^2 \cdot \text{hr} \cdot ^\circ\text{F}} \left(\frac{\text{W}}{\text{m}^2 \cdot ^\circ\text{C}} \right)$ ² R Units" $\frac{\text{ft}^2 \cdot \text{hr} \cdot ^\circ\text{F}}{\text{BTU}} \left(\frac{\text{m}^2 \cdot ^\circ\text{C}}{\text{W}} \right)$ | | | |

¹The lower the value, the better the performance. ²The higher the value, the better the performance.

KNAUF INSULATION



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UL Environment GREENGUARD Certification Program

Black Acoustical Board is certified to UL Environment GREENGUARD standards for low chemical emissions into indoor air during product usage.

UL Environment GREENGUARD Gold

Knauf Insulation has achieved UL Environment GREENGUARD Gold Certification for Black Acoustical Board.

UL Environment Validated Formaldehyde Free

Knauf Insulation has achieved UL Environment validation that Black Acoustical Board is formaldehyde-free.

For more information, visit ul.com/spot



LEED Eligible Product

Use of this product may help building projects meet green building standards as set by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

LEED v2009

MR Credit 4.1 - 4.2 Recycled Content
MR Credit 5.1 - 5.2 Regional Materials

LEED v4

Knauf Insulation offers several products for both envelope and mechanical systems that have ingredient disclosure and transparency. Please contact transparency@knaufinsulation.com for products that currently contribute to MR credits.



Versions of this product have surface burning characteristics that are classified by Underwriters Laboratories and therefore subject to auditing for fire performance compliance.



This product has been tested and is certified to meet the EUCEB requirements.