



## Performance+®

### Black Acoustical Board with ECOSE® Technology

Product-Data-Sheet

#### Description

Performance+® Black Acoustical Board is a heavy-density mat-faced fiberglass board insulation bonded with ECOSE® Technology. Its base board is brown with a black mat facing with a smooth, tough surface, that resists damage during installation and operation.

#### Application

- Acoustical insulation and/or a visual barrier on walls and ceilings, where system design requires a rigid product where additional strength and abuse resistance are required
- Typically used where framing members are not present

#### Specification Compliance

- ASTM C612
  - Type 1A (maximum service temperature 250°F)

#### Indoor Air Quality

- Asthma & Allergy Friendly® Certified
- Verified Healthier Air™
- UL Environment
  - 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
- EUCEB Certified

#### Certifications



The Asthma & Allergy Friendly® Certification Mark is a Registered Certification Mark of the Asthma Allergy Foundation of America (AAFA) and Allergy Standards Ltd (ASL). Verified Healthier Air™ is a trademark of Airmid Healthgroup. USGBC® and the related logo are trademarks owned by the U.S. Green Building Council® and are used with permission.

Contractor: \_\_\_\_\_

Job: \_\_\_\_\_

Date: \_\_\_\_\_

## 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 <sup>3</sup> )	2" (51 mm)	0.26	0.62	1.05	1.07	1.04	1.05	0.95
3.0 PCF (48 kg/m <sup>3</sup> )	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 <sup>3</sup> )	2" (51 mm)	R-8.7	24" (610 mm)	48" (1219 mm)
3.0 PCF (48 kg/m <sup>3</sup> )	1" (25 mm)	R-4.3		
	1½" (38 mm)	R-6.5		
	2" (51 mm)	R-8.7		

\*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.

\*For other dimensions and densities, please check with Knauf sales.

## Thermal Conductivity "C"<sup>1</sup> and Resistance "R"<sup>2</sup> | ASTM C177

Mean Temperature 75° F (24° C)			
Product		Conductance "C"	Resistance "R"
2.25 PCF (36 kg/m <sup>3</sup> )	2" (51 mm)	0.11 (0.62)	8.7 (1.53)
3.0 PCF (48 kg/m <sup>3</sup> )	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)
"C Units" $\frac{\text{BTU}}{\text{ft}^2 \cdot \text{hr} \cdot ^\circ\text{F}} \left( \frac{\text{W}}{\text{m}^2 \cdot ^\circ\text{C}} \right)$		"R Units" $\frac{\text{ft}^2 \cdot \text{hr} \cdot ^\circ\text{F}}{\text{BTU}} \left( \frac{\text{m}^2 \cdot ^\circ\text{C}}{\text{W}} \right)$	

<sup>1</sup>The lower the value, the better the performance. <sup>2</sup>The higher the value, the better the performance.

## STORAGE

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

## FIBERGLASS AND MOLD

Fiberglass 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.

## NOTES

When condensation is permitted to occur between nested Performance+ 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.

The chemical and physical properties of this product represent average values determined in accordance with accepted test methods. The data is subject to normal manufacturing 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.

Consult with or follow local building and energy codes to determine appropriate R-values and need for and placement of a vapor retarder.

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This product is covered by one or more U.S. and/or other patents.

See patent [www.knaufnorthamerica.com/patents](http://www.knaufnorthamerica.com/patents)

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