



Knauf Data Sheet

OM-DS-7e 03-13

Acoustical Smooth Board

with ECOSE® Technology



Acoustical Smooth Board *with ECOSE® Technology*

Description

Knauf Insulation Acoustical Smooth Board is a 6.0 PCF thermal and acoustical insulation product made from inorganic glass fibers preformed into boards with ECOSE® Technology. The board is smooth on one side with precision cut tolerances.

Color

ECOSE Technology gives the product its unique brown color.

ECOSE Technology

ECOSE Technology is a revolutionary binder chemistry that makes Knauf Insulation products even more sustainable than ever. It features rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals traditionally used in fiber glass insulation products. ECOSE Technology reduces binder embodied energy and does not contain phenol, formaldehyde, acrylics or artificial colors.

Application

Knauf Insulation Acoustical Smooth Board with ECOSE Technology is a versatile product for thermal and acoustical applications such as office partitions, ceiling panels, interior panels and sound baffles.

Features and Benefits

Density and Size Availability

- Knauf Insulation Acoustical Smooth Board with ECOSE Technology is available in the densities and sizes required by panel and ceiling manufacturers. Special items not shown on the price and data sheet can be made based on our process capability.

Surface Smoothness

- One surface is smooth which allows for flatness and uniformity.

Precision Tolerances

- Tolerances are $\pm 1/16"$ (1.6 mm) for thickness and $\pm 1/8"$ (3.2 mm) for width and $\pm 1/4"$ (6.4 mm) length.

Fabrication

- The board is suitable for machining.

Noise Reduction

- Excellent sound absorption characteristics, an important benefit for today's office and interiors.

Indoor Air Quality

- Certified for indoor air quality as a low emitting product by The GREENGUARD Environmental Institute to both the GREENGUARD Certification ProgramSM and the more stringent GREENGUARD Children and SchoolsSM standard and verified to be formaldehyde free.

Sustainability

- Carbon-negative: Knauf Insulation's products used for thermal insulating purposes recover the energy that it took to make them in just hours or a few days, depending on the application. Once installed, the product continues to save energy and reduce carbon generation as long as it is in place.
- Fiber glass insulation with ECOSE Technology contains three primary ingredients:
 - Approximately 60% recycled post-consumer glass content verified every 6 months by UL Environment.
 - Sand, one of the world's most abundant and renewable resources
 - Our green chemistry initiative ECOSE Technology, which reduces binder embodied energy by up to 70%
- This product contains no materials or chemicals on the International Living Building Institute's Red List.

Packaging

- The standard packaging is sheets on pallets. For other options contact your Knauf Insulation sales representative.

Specification Compliance

In U.S.:

- ASTM C 612; Type IA and Type IB
- GREENGUARD Indoor Air Quality Certified®
- GREENGUARD Children & SchoolsSM and verified to be formaldehyde free
- California Title 24
- HH-I-558C; Form A, Class 1 and Class 2
- NFPA 90A and 90B

In Canada:

- CGSB 51-GP-10M

Technical Data

Surface Burning Characteristics (UL Classified)

- Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E 84, CAN/ULC S102-M88, NFPA 90A and 90B, NFPA 255 and UL 723.

Temperature Range (ASTM C 411)

- Operating temperatures from 0°F to 450°F (-18°C to 232°C) up to 4" product thickness

Corrosiveness (ASTM C 665)

- Does not accelerate corrosion on steel, copper or aluminum.

Corrosion (ASTM C 1617)

- The corrosion rate in mils/yr will not exceed that of the 1 ppm chloride solution.

Shrinkage (ASTM C 356)

- Less than 0.3% linear shrinkage.

Mold Growth (ASTM C 1338)

- Does not promote growth.

Water Vapor Sorption (ASTM C 1104)

- Less than 5% by weight.

Odor (ASTM C 1304)

- Not objectionable.



Sound Absorption Coefficients
(ASTM C 423, Type A Mounting)

Density		Thickness	Octave Band Center Frequency (cycles/sec.)						NRC
			125	250	500	1000	2000	4000	
6.0 PCF (96 kg/m ³)		1" (25 mm)	.05	.26	.77	1.04	1.04	1.03	.80
		1½" (38 mm)	.13	.58	1.01	1.05	1.00	1.01	.90
		2" (51 mm)	.32	.81	1.08	1.06	1.03	1.04	1.00

Thermal Conductivity
(ASTM C 177) @ 75°F Mean Temperature

Density	Thermal Conductivity BTU-in. ft ² °F
6.0 PCF (96 kg/m ³)	0.22

FORMS AVAILABLE AND MINIMUM RELEASE — 6.0 PCF (96 kg/m³)

Thickness	Width Range †	Length Range	Minimum Release
¾" (19 mm)	24"-61" (610 mm to 1549 mm)	48"-121" (1219 mm to 3073 mm)	18 MSF
1" (25 mm)			12 MSF
1½" (38 mm)			9 MSF
2" (51 mm)			6 MSF

† Tolerances: Thickness: ± 1/16" (1.59 mm); Width: ± 1/8" (3.2 mm); Length: ± 1/4" (6.4 mm).
For requirements not listed, contact your Knauf Insulation sales representative.

Packaging Available

Product Dimensions	Package
24" x 48"	Carton
48" x 96"	Pallet
48" x 120"	Pallet
49" x 97"	Pallet
49" x 121"	Pallet

For more information call (800) 825-4434, ext. 8283

or visit us online at www.knaufinsulation.us



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Low Emitting

- Certified for indoor air quality as a low emitting product by the GREENGUARD Environmental Institute.

Product Availability

1. All products are custom.
2. Acoustical Smooth Board is skidded smooth on one side.
3. Product tolerances:
+/- 1/16" (1.6 mm) thickness
+/- 1/8" (3.2 mm) width
+/- 1/4" (6.4 mm) length.
4. It is recommended that Acoustical Smooth Board be sampled and evaluated prior to ordering.

Fiber Glass and Mold

Fiber glass 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.

Notes

The chemical and physical properties of Knauf Insulation Acoustical Smooth Board with ECOSE Technology represent typical 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.

Check with your Knauf Insulation sales representative to assure information is current.



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



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



Knauf Acoustical Smooth Board Insulation with ECOSE Technology products are certified for indoor air quality as a low emitting product by The GREENGUARD Environmental Institute to both the GREENGUARD Certification ProgramSM and the more stringent GREENGUARD for Children and SchoolsSM standard and is verified to be formaldehyde free.

www.greenguard.org

The GREENGUARD INDOOR AIR QUALITY CERTIFIED Mark is a registered certification mark used under license through the GREENGUARD Environmental Institute.