



Black Acoustical Insulation

with ECOSE® Technology



Black Acoustical Insulation *with ECOSE® Technology*

Wall and Ceiling Liner M *with ECOSE Technology*

Description

Knauf Wall and Ceiling Liner M with ECOSE Technology is a brown flexible fiber glass blanket with a black mat facing adhered to one surface. It provides thermal and acoustical insulation and a visual barrier. Its smooth, tough surface resists damage during installation.

Application

Knauf Wall and Ceiling Liner M with ECOSE Technology is designed for use as an acoustical and visual barrier for walls and ceilings where a black surface is required. It is primarily used in theaters, sound studios, public concourses and other areas where acoustical treatment is needed. It is intended to be mechanically fastened to walls and covered with fabric or draping, or suspended above linear metal and metal pan ceiling systems to serve as both a visual and acoustical treatment.

Features and Benefits

Acoustical Barrier

- Reduces airborne sound.
- Significantly improves STC ratings of wall configurations.

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 GREEN-GUARD Children and SchoolsSM standard.

Technical Data

Surface Burning Characteristics (UL/ULC Listed)

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

Service Temperature (ASTM C 411)

- Maximum 250°F (121°C).

Microbial Growth

(ASTM C 1338, G 21, G 22)

- Does not support microbial growth.

Water Vapor Sorption (ASTM C 1104)

- Less than 3% by weight.

Air Velocity (ASTM C 1071)

- Maximum 6000 fpm (1829 mpm).

Packaging

- Knauf Wall and Ceiling Liner M with ECOSE Technology is packaged in a strong, white poly sleeve that offers excellent protection from abuse, dust and moisture.

Black Acoustical Board *with ECOSE Technology*

Description

Knauf Black Acoustical Board with ECOSE Technology is a heavy density fiber glass board insulation bonded with ECOSE Technology. The base board is brown with a black mat applied to provide a smooth, tough finish.

Application

Knauf 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.

Features and Benefits

Acoustical Barrier

- Reduces airborne sound transmission.
- Significantly improves STC ratings of wall configurations.

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 GREEN-GUARD Children and SchoolsSM standard.

Technical Data

Surface Burning Characteristics (UL/ULC Listed)

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

Service Temperature (ASTM C 411)

- Maximum 250°F (121°C).

Microbial Growth

(ASTM C 1338, G 21, G 22)

- Does not support microbial growth.

Water Vapor Sorption (ASTM C 1104)

- Less than 3% by weight.

Air Velocity (ASTM C 1071)

- Maximum 4000 fpm (1219 mpm).

Packaging

- Knauf Black Acoustical Board with ECOSE Technology is packaged in cartons that offer excellent protection from abuse, dust and moisture.
- Cartons are unitized for easy handling and storage.

Wall and Ceiling Liner M Noise Reduction Coefficients
(ASTM C 423, Type A Mounting)

Density	Thickness	NRC
1.0 PCF (16 kg/m ³)	1" (25 mm)	.60
	1½" (38 mm)	.80
	2" (51 mm)	.85
1.5 PCF (24 kg/m ³)	½" (13 mm)	.50
	1" (25 mm)	.70
	1½" (38 mm)	.80
	2" (51 mm)	.90
2.0 PCF (32 kg/m ³)	½" (13 mm)	.45
	1" (25 mm)	.70

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

Density	Thickness	Octave Band Center Frequency (cycles/sec.)						
		125	250	500	1000	2000	4000	NRC
2.25 PCF (36 kg/m ³)	2" (25 mm)	.26	.62	1.05	1.07	1.04	1.05	.95
3.0 PCF (48 kg/m ³)	1" (51 mm)	.13	.24	.56	.83	.92	.98	.65
	1½" (76 mm)	.19	.41	.89	1.02	1.03	1.04	.85
	2" (25 mm)	.33	.67	1.07	1.07	1.03	1.06	.95

Wall and Ceiling Liner M Forms Available

Density	Thickness	R-Value	Width	Length
1.0 PCF (16 kg/m ³)	1" (25 mm)	3.6	48" (1219 mm)	100' (30.48 m)
	1½" (38 mm)	5.4		50' (15.24 m)
	2" (51 mm)	7.1		50' (15.24 m)
1.5 PCF (24 kg/m ³)	½" (13 mm)	2.0		100' (30.48 m)
	1" (25 mm)	4.2		100' (30.48 m)
	1½" (38 mm)	6.0		50' (15.24 m)
2.0 PCF (32 kg/m ³)	2" (51 mm)	8.0		50' (15.24 m)
	½" (13 mm)	2.1		100' (30.48 m)
	1" (25 mm)	4.2		50' (15.24 m)

Black Acoustical Board Forms Available

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

ECOSE® Technology

ECOSE Technology is a revolutionary new binder chemistry that makes Knauf Insulation products even more sustainable than ever. It is based on 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.

Sustainability

Knauf Insulation 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 (carbon negative).

Fiber glass with ECOSE® Technology contains three primary ingredients:

- Sand, one of the world's most abundant and renewable resources
- Post-consumer recycled bottle glass
- ECOSE Technology which reduces binder embodied energy by up to 70%.

Fiber Glass and Mold

Fiber glass (glasswool) 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.

For more information call (800) 825-4434, ext. 8300

or visit us online at www.knaufinsulation.us



Knauf Insulation GmbH
One Knauf Drive
Shelbyville, IN 46176

Sales and Marketing (800) 825-4434, ext. 8300

Technical Support (800) 825-4434, ext. 8212

Fax (317) 398-3675

Information info.us@knaufinsulation.com

World Wide Web www.knaufinsulation.us

©2009 Knauf Insulation GmbH.

Notes

The chemical and physical properties of Knauf Black Acoustical Insulation 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



Knauf EcoBatt Insulation is 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 Schools™ standard. www.greenguard.org

