KNAUF INSULATION

Data Sheet | BI-AC-DS | 06-18

Acoustical Insulation *with ECOSE® Technology*

- Wall and Ceiling Liner M
- Black Acoustical Board
- Insulation Board

with ECOSE® TECHNOLOGY

Acoustical Insulation *with ECOSE® Technology*

Knauf Insulation Acoustical Insulation products provide acoustical and thermal insulation to walls and ceilings of theaters, sound studios and auditoriums.

Wall and Ceiling Liner M *with ECOSE Technology*

DESCRIPTION

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

APPLICATIONS

Knauf Insulation 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 can be covered with fabric or draping, or suspended above linear metal and metal pan ceiling systems to serve as both a visual and acoustical treatment.

TECHNICAL DATA

Surface Burning Characteristics (UL Classified)

- Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E84 and UL 723

Indoor Air Quality

- UL Environment
  - GREENGUARD certified
  - GREENGUARD Gold certified

Corrosiveness (ASTM C665)

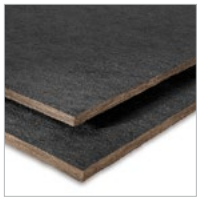
- Does not accelerate corrosion on steel

Corrosion (ASTM C1617)

- Pass

Black Acoustical Board *with ECOSE Technology*

DESCRIPTION



Knauf Insulation Black Acoustical Board with ECOSE Technology is a heavy density fiberglass board insulation made with ECOSE Technology. The base board is brown with a black mat applied to provide a smooth tough finish.

APPLICATIONS

Knauf Insulation Black Acoustical Board with ECOSE Technolog is designed for use as acoustical insulation and/or 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.

TECHNICAL DATA

Surface Burning Characteristics (UL Classified)

- Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E84, and UL 723

Indoor Air Quality

- UL Environment
  - GREENGUARD certified
  - GREENGUARD Gold certified

Corrosiveness (ASTM C665)

- Does not accelerate corrosion on steel

Corrosion (ASTM C1617)

- Pass

Insulation Board *with ECOSE Technology*

DESCRIPTION

Insulation Board with ECOSE Technology from Knauf Insulation is a thermal and acoustical insulation product made from inorganic glass fibers preformed into boards. The board is available plain, with a factory applied foil-scrim-kraft (FSK) facing, with a factory-applied all service jacket (ASJ) or with a factory applied metalized polypropylene-scrim-kraft jacket (PSK).

APPLICATIONS

Insulation Board with ECOSE Technology from Knauf Insulation is a versatile product for use on metal and masonry walls, wall and roof panel systems, curtain wall assemblies and cavity walls.

TECHNICAL DATA

Surface Burning Characteristics (UL Classified)

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

Indoor Air Quality

- UL Environment
  - GREENGUARD certified
  - GREENGUARD Gold certified

Corrosiveness (ASTM C665)

- Does not accelerate corrosion on steel

Corrosion (ASTM C1617)

- Pass

Wall and Ceiling Liner Sound Absorption Coefficients | ASTM C423, Type A Mounting								
Type		Octave Band Center Frequency (cycles/sec.)						
		125	250	500	1000	2000	4000	NRC
1.5 PCF (24 kg/m³)	1" (25 mm)	0.18	0.28	0.73	0.85	0.91	0.90	0.70
	1.5" (38 mm)	0.23	0.50	0.87	0.92	0.93	0.93	0.80
	2" (51 mm)	0.37	0.76	1.02	1.00	0.98	0.92	0.95
2.0 PCF (32 kg/m³)	0.5" (13 mm)	0.10	0.17	0.43	0.59	0.73	0.75	0.50
	1" (25 mm)	0.25	0.35	0.69	0.89	0.96	1.01	0.70
	1.5" (38 mm)	0.27	0.55	0.87	0.99	1.00	0.98	0.85

Available in 48" (1,219 mm) wide rolls in lengths of 100' or 50' (30.48 or 15.24 m).
Contact your Knauf Insulation Territory Manager for additional information.

Black Acoustical Board Sound Absorption Coefficients | ASTM C423, Type A Mounting								
		Octave Band Center Frequency (cycles/sec.)						
Density	Thickness	125	250	500	1000	2000	4000	NRC
2.25 PCF (36 kg/m³)	2" (51mm)	0.26	0.62	1.05	1.07	1.04	1.05	0.95
3.0 PCF (48 kg/m³)	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	.67	1.07	1.07	1.03	1.06	0.95

Available 24" (610 mm) wide x 48" (1,219 mm) long.

Insulation Board Sound Absorption Coefficients | ASTM C423, E795, Type A Mounting									
			Octave Band Center Frequency (cycles/sec.)						
Type	Facing	Thickness	125	250	500	1000	2000	4000	NRC
2.25 PCF (36 kg/m³)	FSK	1" (25 mm)	0.05	0.24	0.59	0.86	0.97	1.00	0.65
		1½" (38 mm)	0.17	0.49	0.93	1.03	1.03	0.99	0.85
		2" (51 mm)	0.26	0.62	1.05	1.07	1.04	1.05	0.95
3.0 PCF (48 kg/m³)	Plain	1" (25 mm)	0.08	0.23	0.62	0.88	0.96	0.99	0.65
		1½" (38 mm)	0.09	0.39	0.89	1.03	1.06	1.01	0.85
		2" (51 mm)	0.29	0.65	1.11	1.13	1.06	1.03	1.00
		3" (76 mm)	0.54	1.01	1.18	1.07	1.07	1.04	1.10
		4" (102 mm)	0.95	1.11	1.17	1.07	1.07	1.06	1.10
	FSK	1" (25 mm)	0.21	0.63	0.84	0.93	0.51	0.22	0.75
		1½" (38 mm)	0.45	0.60	0.99	0.73	0.53	0.27	0.70
		2" (51 mm)	0.67	0.77	0.93	0.74	0.47	0.28	0.75

Available in widths of 24" (610 mm) and 48" (1,219 mm) and lengths of 36" (915 mm) to 120" (3,048 mm).

ECOSE® TECHNOLOGY

ECOSE Technology is a revolutionary binder chemistry that enhances the sustainability of our products. The "binder" is the bond that holds our fiberglass 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 fiberglass products. Products using ECOSE Technology are formaldehyde-free and have reduced global warming potential when compared to our products of the past.

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.

- Fiberglass insulation with ECOSE Technology contains three key ingredients:
- Recycled glass content, verified annually 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

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.

KNAUF INSULATION

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NOTES

The chemical and physical properties of the Knauf Insulation products Wall and Ceiling Liner M, Black Acoustical Board and Insulation Board 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 Territory Manager to ensure information is current.

UL Environment GREENGUARD Certification Program
Acoustical Insulation products are certified to UL Environment GREENGUARD standards for low chemical emissions into indoor air during product usage.

UL Environment GREENGUARD Gold Certification Program
Knauf Insulation has achieved UL Environment GREENGUARD Gold Certification for Acoustical Insulation products.

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.

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