



Commercial Building Insulation Products



Knauf Light Commercial Insulation



• **EcoBatt® Thermal and Acoustical Insulation**



• **Insulation Board with ECOSE® Technology**



• **Black Acoustical Insulation with ECOSE® Technology**

Knauf Commercial Building Insulation Products with ECOSE® Technology

Superior Products for Sustainability, Thermal and Acoustical Efficiency and Installer Productivity

When considering an insulation product for your light commercial project, fiber glass or glasswool insulation products have proven to be one of the most thermally efficient and cost-effective ways to save energy. Knauf Insulation products made with ECOSE® Technology go beyond our traditional glasswool to the next generation of sustainable insulation. ECOSE Technology is a revolutionary new bio-based binder that contains no phenol, formaldehyde, acrylics or artificial colors. It is made from rapidly renewable bio-based materials instead of non-renewable petroleum-based chemicals for greater sustainability.

Glasswool insulation is an excellent performer in maintaining desired room temperatures for comfortable work environments. Additionally, glasswool insulation works well to reduce unwanted noise and limit sound transmission from the outside and from one room to another. Glasswool insulation helps to create work spaces in which people can be productive.

And Knauf Insulation is committed to providing premium quality thermal and acoustical insulation products that continually perform throughout the life of the building.

Installer productivity is also a primary consideration in choosing an insulation product. Knauf has earned a well-deserved reputation for delivering products that installers prefer. To enhance productivity, Knauf EcoBatt® Insulation:

- Recovers quickly out of the package for immediate installation,
- Has a consistent fiber density for a smooth clean cut with low dust every time.
- Is firm for easy handling and installation, and
- Is full and gutsy to fit snugly in the wall cavity without slumping.

Beyond batts, other Knauf Insulation products are also known for their consistent densities and ease of fabrication. For light commercial buildings, Knauf Insulation Board and Black Acoustical Insulation with ECOSE Technology have garnered a reputation of high quality, efficient installation and higher productivity.



Low dust and easy, smooth cutting are two ways that Knauf EcoBatt® Insulation keeps installers efficient and comfortable.



Unitizing 4 or 5 batt bags into one easy-to-handle package saves time on the jobsite with Knauf Master Bags.



Knauf Master Bags give you more efficient product handling and profitable installations. Large quantities of material are moved fast and easy with lift trucks utilizing either hydraulic clamps or forks.

- The durable poly woven bag protects batts from impact and damage.
- Product identification and information are easy to read through the translucent poly woven bag.



Knauf EcoBatt® Commercial Building Insulation with ECOSE® Technology

Tough Industry Demands, Easy-Going Product

We help you meet the tough construction industry demands on time and money with products that enhance installer productivity and create long term value for the building owner. All while fulfilling your business needs with a full line of quality products that will help to ensure your finished work looks and performs to everyone's expectations. And Knauf products are backed by the most responsive service in the industry because helping you succeed in your business is how we succeed in ours. Knauf EcoBatt® Thermal and Acoustical Glasswool Insulation products are available:

- Unfaced
- Kraft faced
- Foil faced
- Flame-rated FSK-25 (Foil-Scrim-Kraft) foil faced.

Knauf EcoBatt® Commercial Building Insulation provides cost-effective thermal and acoustical barriers for energy-efficient design. Their consistent quality, low dust and clean-cutting resilient fibers make fabrication easy and installation fast. The products can be used in wood and metal frame applications in commercial structures. These applications include thermal and acoustical treatments to walls, ceilings and floors.

Knauf EcoBatt® QuietTherm® Insulation's excellent acoustical properties reduce sound transmission and assist in reducing unwanted noise. Knauf EcoBatt QuietTherm Insulation can improve STC ratings in wood stud construction by 3 to 5 points and metal stud construction by 8 to 10 points, depending on the complexity of the wall configuration and layers of insulation. Knauf EcoBatt Commercial Insulation can be used for exterior and partition walls, floors, crawlspaces and a variety of ceiling applications.



Knauf EcoBatt® Commercial Building Insulation

Installer comfort and higher productivity are the outcomes of our low-dust batts. Professional installers prefer Knauf's consistent density, low dust and clean-cutting batts.



GREENGUARD For Children and Schools™ Certified

Strict indoor air quality requirements for applications such as classroom and daycare facilities are met or exceeded with Knauf batts.

Random testing by an independent third-party ensures ongoing compliance.



Knauf EcoBatt® QuietTherm® Insulation

Acoustical insulation can assist with improving the STC ratings by 8 to 10 points in metal stud construction.



Knauf Insulation Board with ECOSE® Technology cuts smooth and easy for a quick and trouble-free installation.



Knauf Wall and Ceiling Liner M with ECOSE® Technology is commonly used to provide an acoustical treatment in theaters and concourses. It is also used as a ceiling cover in restaurants for visual aesthetics.



Knauf Black Acoustical Insulation with ECOSE® Technology resists damage during installation and has a consistent black surface for visual aesthetics.



Knauf Insulation Board with ECOSE® Technology fulfills many thermal and acoustical applications in light commercial construction. From metal and masonry walls, curtain wall assemblies and wall cavities to wall and roof panel systems.



Knauf's line of Black Acoustical Insulation with ECOSE® Technology is specifically designed to reduce airborne sound transmission and combines the performance, appearance and abuse resistance any job may require.

Knauf Insulation Board with ECOSE® Technology is a thermal and acoustical insulation product made from inorganic glass fibers preformed into boards bonded by ECOSE Technology. Available in:

- Unfaced,
- Foil-scrim-kraft (FSK) facing factory-applied,
- Polypropylene-scrim-kraft (PSK) facing factory-applied and
- All-service jacket (ASJ) factory-applied.

It is a versatile product for thermal and acoustical applications such as metal and masonry walls, wall and roof panel systems, curtain wall assemblies and cavity walls.

Lower Installation and Operating Costs

The lightweight, stiff board is easy to handle and fabricate making for a fast installation, lowering labor costs. And the excellent thermal efficiency conserves energy and lowers operating costs.

Improved Interior Surroundings

Excellent acoustical properties effectively reduce noise. An enhanced appearance is created with FSK, PSK and ASJ vapor-retardant facings.

Knauf Black Acoustical Insulation with ECOSE® Technology reduces sound transmission and can significantly improve STC ratings of wall configurations. These products are designed for use as acoustical insulation or as an enhancement of the visual surface on walls and ceilings.

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. Its smooth, tough surface resists damage during installation.

Knauf Wall and Ceiling Liner M 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 panel ceiling systems to serve as both a visual and acoustical treatment.

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

Knauf Black Acoustical Board is designed for use as acoustical insulation and/or a visual aesthetic on walls and ceilings, where a rigid product and additional strength and abuse resistance are required. The product is typically used where framing members are not present.

Knauf EcoBatt® and EcoBlanket® Insulation

with ECOSE® Technology

Metal Frame Construction

EcoBatt Insulation



R-Value	Thickness	Width	Facings				Specification Compliance	Surface Burning Characteristics	Facing Permeance	Water Vapor Sorption (ASTM C 1104)	Corrosion (ASTM C 665)	Microbial Growth (ASTM C 1338)	Non-Combustibility (ASTM E 136)	Packaging
			Unfaced	Kraft	Foil*	FSK-Foil								
R-8 QT*	2.5" (64 mm)	16", 24" (406, 610 mm)	•				U.S.— ASTM C 665, Type I, Class A (unfaced); ASTM C 665, Type II, Class C (kraft faced); ASTM C 665, Type III, Class A (FSK-25 foil faced); ASTM C 665, Type III, Class B (foil faced); GREENGUARD Certification; GREENGUARD For Children and Schools™ Certification; California Energy Commission; Dade County, Florida; MEA #498-90-M; State of Minnesota.	Unfaced & FSK-25: Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E 84.	Kraft faced products have a moisture permeance of 1.0 or less. FSK foil faced products have ratings of .04. Foil faced products have ratings of .05.	5% maximum by weight.	No greater than sterile cotton.	Does not support microbial growth.	Noncombustible (unfaced)	Feature complete installation instructions and a highly visible color coding system which follows industry standards, making Knauf products easy to select. Knauf packages are lightweight, stack without slipping and are sized to fit easily under floors and through scuttle holes.
R-11	3.5" (89 mm)	16", 24" (406, 610 mm)			•	•								
R-11 QT*	3.5" (89 mm)	16", 24" (406, 610 mm)	•	•										
R-13	3.5" (89 mm)	16" (406 mm)			•	•								
R-13 QT*	3.5" (89 mm)	16", 24" (406, 610 mm)	•	•										
R-19	6.25" (159 mm)	16", 24" (406, 610 mm)			•	•								
R-19 XF**	6.25" (159 mm)	23" (584 mm)				•								
R-19 QT*	6.25" (159 mm)	16", 24" (406, 610 mm)	•	•										
R-30	10" (254 mm)	16", 24" (406, 610 mm)			•	•								
R-30 XF**	10" (254 mm)	24" (610 mm)				•								
R-38	12" (305 mm)	24" (610 mm)			•									

* QT — QuietTherm Insulation
 ** XF — Extended Flange, FSK Foil Facing

Knauf EcoBatt® and EcoBlanket® Insulation

with ECOSE® Technology

Wood Frame Construction

R-Value

Thickness

Width

Facings

Unfaced

Kraft

Foil

FSK-Foil

Specification Compliance

Surface Burning Characteristics

Facing Permeance

Water Vapor Sorption (ASTM C 1104)

Corrosion (ASTM C 665)

Microbial Growth (ASTM C 1338)

Non-Combustibility (ASTM E 136)

Packaging


EcoBatt Insulation



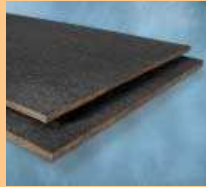

Product	R-Value	Thickness	Width	Unfaced	Kraft	Foil	FSK-Foil	Specification Compliance	Surface Burning Characteristics	Facing Permeance	Water Vapor Sorption (ASTM C 1104)	Corrosion (ASTM C 665)	Microbial Growth (ASTM C 1338)	Non-Combustibility (ASTM E 136)	Packaging
R-11	3.5" (89 mm)	3.5" (89 mm)	11", 15", 15.25", 16", 19", 23", 23.25", 24" (279, 381, 406, 483, 584, 610 mm)	•	•	•	•	U.S.— ASTM C 665, Type I, Class A (unfaced); ASTM C 665, Type II, Class C (kraft faced); ASTM C 665, Type III, Class A (FSK-25 foil faced); ASTM C 665, Type III, Class B (foil faced); GREENGUARD Certification; GREENGUARD For Children and Schools™ Certification; California Energy Commission; Dade County, Florida; MEA #498-90-M; State of Minnesota.	Unfaced & FSK-25: Does not exceed 25 Flame Spread, 50 Smoke Developed when tested in accordance with ASTM E 84.	Kraft faced products have a moisture permeance of 1.0 or less. FSK foil faced products have ratings of .04 Foil faced products have ratings of .05	5% maximum by weight.	No greater than sterile cotton.	Does not support microbial growth	Noncombustible (Unfaced)	Feature complete installation instructions and a highly visible color coding system which follows industry standards, making Knauf products easy to select. Knauf packages are lightweight, stack without slipping and are sized to fit easily under floors and through scuttle holes. Most batt products are packaged in Knauf Master Bag 4-packs. However, several 15"/16" products are available in 5-packs.
R-13				•	•	•	•								
R-15HD*	3.5" (89 mm)	3.5" (89 mm)	11", 15", 15.25", 16", 19", 23" (279, 381, 406, 483, 584, 610 mm)	•	•										
R-19	6.25" (159 mm)	6.25" (159 mm)	11", 15", 15.25", 16", 19", 23", 23.25", 24", (279, 381, 387, 406, 483, 584, 590, 610 mm)	•	•	•	•								
R-21HD*	5.5" (140 mm)	5.5" (140 mm)	15", 15.25", 23" (381, 406, 584 mm)	•	•										
R-22	6.5" (165 mm)	6.5" (165 mm)	15", 16", 19", 23" (381, 406, 483, 584 mm)	•	•										
R-25	8.25" (210 mm)	8.25" (210 mm)	15", 19.25", 23" (381, 489, 584 mm)	•											
R-26	9" (229 mm)	9" (229 mm)	16", 24" (406, 610 mm)	•	•										
R-30HD*	8.25" (210 mm)	8.25" (210 mm)	15", 23" (381, 584 mm)	•	•										
R-30	10" (254 mm)	10" (254 mm)	11", 12", 16", 19", 19.25", 24", (279, 406, 483, 489, 610 mm)	•	•	•	•								
R-38HD*	10.25" (260 mm)	10.25" (260 mm)	15", 23" (381, 584 mm)	•	•										
R-38	12" (305 mm)	12" (305 mm)	16", 24" (406, 610 mm)	•	•		•								

* HD — High Density Batt

Knauf Insulation Board with ECOSE® Technology

Insulation Board	Density (kg/m³)	Thickness	Width	Length	Packaging	Thermal Conductivity k-Value (S.I.) (ASTM C 518)*	Thermal Resistance R-Value (S.I.) (ASTM C 177)*	Specification Compliance	Acoustical Performance Sound Absorption Coefficients (ASTM C 423, Type A Mounting)	Surface Burning Characteristics	Temp. Range (ASTM C 411)	Puncture Resistance (TAPPI Test T803, Beach Units)	Water Vapor Permeance (ASTM E 96, Procedure A)	Water Vapor Sorption (ASTM C 1104)				
															1/3 Octave Band Center Frequency (Cycles/Sec.)			
									Density	Thickness	Facing	NRC						
	1.6 PCF (26 kg/m³)	1½" (38 mm)	24", 48" (610 mm and 1219 mm)	48", 96", and 120" (1219, 2438 and 3048 mm)	Plain: Cartons, Sleeves Faced: Cartons Only	.24 (.035)	6.3 (1.1)	U.S.— ASTM C 612, Type IA, IB; ASTM C 1136 (facings), Type I, II, III, IV (ASJ), Type II, IV (FSK, PSK) California Title 24; HH-B-100B, Type I (ASJ facing), Type II (FSK, PSK facings); HH-1558C, Form A, Class 1, Class 2; NFPA 90A and 90B. GREENGUARD Certification; GREENGUARD for Children and Schools™ Certification.		1.6 PCF (26 kg/m³)	1½" (38 mm)	Plain	.80	UL Classified; Unfaced or composite (insulation, facing and adhesive) 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 (except PSK: ASTM E 84 and UL 723 only).	Up to 450°F (232°C)	FSK, PSK Facings: 25 ASJ Facing: 50	FSK, PSK and ASJ vapor retarders have a maximum vapor transmission rate of .02 perms.	Less than 5% by weight.
		2" (51 mm)									.90							
		2½" (64 mm)									1.00							
		3" (76 mm)									1.05							
		3½" (89 mm)																
	2.25 PCF (36 kg/m³)	1" (25 mm)	24", 48" (610 mm and 1219 mm)	48", 96", and 120" (1219, 2438 and 3048 mm)		.23 (.033)	4.3 (0.8)			2.25 PCF (36 kg/m³)	1" (25 mm)	Plain	.65					
		1½" (38 mm)									.85							
		2" (51 mm)									.95							
		1" (25 mm)									FSK		.75					
		2" (51 mm)											.75					
3.0 PCF (48 kg/m³)	1" (25 mm)	24", 48" (610 mm and 1219 mm)	48", 96", and 120" (1219, 2438 and 3048 mm)		.23 (.033)	4.3 (0.8)			3.0 PCF (45 kg/m³)	1" (25 mm)	Plain	.65						
										1½" (38 mm)		.85						
										2" (51 mm)		1.00						
										3" (76 mm)		1.10						
										4" (102 mm)		1.10						
	1½" (38 mm)	24", 48" (610 mm and 1219 mm)	48", 96", and 120" (1219, 2438 and 3048 mm)			.23 (.033)	4.3 (0.8)			4.25 PCF (68 kg/m³)	1" (25 mm)	FSK	.75					
											1½" (38 mm)		.70					
											2" (51 mm)	.75						
											1" (25 mm)	ASJ	.65					
											1½" (38 mm)		.65					
2" (51 mm)	24", 48" (610 mm and 1219 mm)	48", 96", and 120" (1219, 2438 and 3048 mm)			.23 (.033)	4.3 (0.8)			6.0 PCF (96 kg/m³)	1" (25 mm)	Plain	.80						
										1½" (38 mm)		.90						
2" (51 mm)	1.00																	
1" (25 mm)	FSK	.50																
1½" (38 mm)		.60																
2" (51 mm)	.60																	
6.0 PCF (96 kg/m³)	24", 48" (610 mm and 1219 mm)	48", 72", 96" and 120" (1219, 1829, 2438 and 3048 mm)			.22 (.032)	4.4 (0.8)				1½" (38 mm)	ASJ	.50						
										2" (51 mm)		.50						

Knauf Black Acoustical Insulation with ECOSE® Technology

		Thickness	Width	Length	Packaging	Thermal Resistance R-Value (S.I.) (ASTM C 518)*	Specification Compliance	Surface Burning Characteristics	Service Temperature (ASTM C 411)	Air Velocity (UL 1071)	Water Vapor Sorption (ASTM C 1104)	Sound Absorption Coefficients (ASTM C 423, Type A Mounting) 1/3 Octave Band Center Frequency (cycles/sec)						
												125	250	500	1000	2000	4000	NRC
Black Acoustical Board 	2.25 PCF (36 kg/m³)	2" (51 mm)	24" (610 mm)	48" (1219 mm)	Unitized Cartons	8.7 (1.53)	U.S.— ASTM 1338, G 21, 22; NFPA 255; UL 723; GREENGUARD Certification; GREENGUARD for Children and Schools SM Certification. Canada — CAN/ULC S102-M88.	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.	Maximum 250°F (121°C)	Maximum 4000 fpm (1219 mpm)	Less than 3% by weight.	.26	.62	1.05	1.07	1.04	1.05	.95
	3.0 PCF (48 kg/m³)	1" (25 mm)				.13						.24	.56	.83	.92	.98	.65	
		1.5" (38 mm)				.19						.41	.89	1.02	1.03	1.04	.85	
		2" (51 mm)				.33						.67	1.07	1.07	1.03	1.06	.95	
		Thickness	Width	Length	R-Value	Specification Compliance	Surface Burning Characteristics	Service Temperature (ASTM C 411)	Air Velocity (UL 1071)	Water Vapor Sorption (ASTM C 1104)	Sound Absorption Coefficients (ASTM C 423, Type A Mounting)							
												125	250	500	1000	2000	4000	NRC
Wall and Ceiling Liner M 	1.0 PCF (16 kg/m³)	1½" (38 mm)	48" (1219 mm)	50' (15.24 m)	5.4	U.S.— ASTM C 1071, Type I; ASTM D 5116; ASTM G 21, 22; California Title 24 (1.5 PCF, 1" and above); NFPA 90A and 90B; SMACNA Application Standard for Duct Liners; NAIMA Fibrous Duct Liner Installation Standards; GREENGUARD Certification; GREENGUARD Children and Schools SM Certification. Canada — CAN/ULC S102-M88; CAN/CGSB 51. 11-92.	UL/ULC Classified; 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.	Up to 250°F (121°C)	Maximum 6000 fpm (1829 mpm)	Less than 3% by weight.	—	—	—	—	—	—	—	.80
		2" (51 mm)		50' (15.24 m)	7.1						—	—	—	—	—	.85		
	1.5 PCF (24 kg/m³)	½" (13 mm)		100' (30.48 m)	2.0						—	—	—	—	.50			
		1" (25 mm)		100' (30.48 m)	4.2						.18	.36	.59	.86	.95	.90	.70	
		1½" (38 mm)		50' (15.24 m)	6.0						.35	.51	.83	.93	.97	.96	.80	
	2.0 PCF (32 kg/m³)	2" (51 mm)		50' (15.24 m)	8.0						.34	.64	.96	1.03	1.00	1.03	.90	
		½" (13 mm)		100' (30.48 m)	2.1						.09	.14	.40	.60	.73	.82	.45	
		1" (25 mm)		50' (15.24 m)	4.2						.25	.35	.69	.89	.96	1.01	.70	

KNAUF INSULATION

it's time to save energy

Knauf Insulation is registered to ISO 9001:2008 in the prevention, detection and correction of problems in production and service areas.

The descriptions of chemical and physical properties of Knauf products listed in this catalog represent typical average values determined in accordance with accepted test methods. The data is subject to normal manufacturing and testing variations, 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 sales representative to ensure that the information in this catalog is the most current available.



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Knauf Insulation Web Site: www.knaufinsulation.us

Visit our Web site to learn more about Knauf Insulation, to obtain product information and for industry news. More information about Greenguard certification and indoor air quality is also available. In addition, documents are available as PDFs. Literature available includes:

- MSDS
- Data Sheets
- Guide Specs
- Submittal Sheets
- Fact Sheets

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ECOSE Technology — 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.



All Knauf products with ECOSE[®] Technology are certified for indoor air quality as low emitting products by The GREENGUARD Environmental Institute™ to both the GREENGUARD Certification ProgramSM and the more stringent GREENGUARD For Children and Schools™ standard. The GREENGUARD INDOOR AIR QUALITY CERTIFIED mark is a registered certification mark used under license through the GREENGUARD Environmental Institute. www.greenguard.org



At Knauf, we manufacture a wide variety of products that serve a common goal, helping to make the most of our planet's energy resources. A family-owned global company, we understand and are committed to high standards in quality, performance and environmental responsibility. Every step we take today toward energy conservation helps ensure better lives for generations to come.



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 4.0 - 1 or 2 pts. Recycled Content Credit 5.0 - 1 or 2 pts. Regional Materials

Rapidly Renewable Materials - Contact Knauf for rapidly renewable content for ECOSE-based product.