

- [Data Sheet](#)

Description

Knauf KN Series Insulation with ECOSE Technology is an amber blanket of glass fibers bonded with ECOSE Technology.

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 fiberglass insulation products. ECOSE Technology reduces binder embodied energy and does not contain phenol, formaldehyde, acrylics or artificial colors.



Packaging

KN Series Insulation is placed in a poly bag, vacuum packaged and slipped into a poly sleeve. The end of the bag is closed with a plastic tie.

Technical Data

Surface Burning Characteristics (UL Classified)

- Does not exceed 25 Flame Spread, 50 Smoke developed when tested in accordance with ASTM E 84 and UL 723.

Maximum Service Temperature (ASTM C 411)

- Designed for applications to a maximum operating temperature of 650°F (271°C).

Odor (ASTM C 1304)

- Not objectionable.

Mold Growth (ASTM C 1338)

- No growth.

Water Vapor Sorption (ASTM C 1104)

- Less than 3% by weight when exposed to air at 120°F (49°C) and 95% humidity for 96 hours.

Specification Compliance

Complies to the property requirements of the following specifications:

- ASTM C 553 Type I, Type II
- ASTM C 795

- MIL-I-22023D Type I and II, Class 2 through 5
- MIL-I-24244C
- NRC Reg. Guide 1.36
- USCG 164.109/19/0
- 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.

Applications

Knauf KN Series products with ECOSE Technology are used as thermal and/or acoustical insulation in the appliance, equipment, industrial, commercial and marine markets up to 650°F (271°C).

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. If it shows signs of facing degradation from wetting, it should be replaced.

Notes

The chemical and physical properties of Knauf KN Series with ECOSE Technology represent typical average values determined in accordance with accepted test methods. The data is subject to normal 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 material under actual fire conditions.

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



Knauf KN Series with ECOSE Technology products are certified for indoor air quality by The GREENGUARD Environmental Institute™, to both the GREENGUARD Certification ProgramSM and the more stringent GREENGUARD For Children and Schools™ Standard. www.greenguard.org The GREENGUARD INDOOR AIR QUALITY CERTIFIED Mark is a registered certification mark used under license through the

GREENGUARD Environmental Institute.

SOUND ABSORPTION COEFFICIENTS (ASTM C 423, Type A Mounting)

		¹ / ₃ Octave Band Center Frequency (cycles/sec.)						
Density	Thickness	125	250	500	1000	2000	4000	NRC
.75 PCF (12 kg/m ³)	1½" (38 mm)	.20	.42	.82	.87	.94	.91	.75
1.0 PCF (16 kg/m ³)	1" (25 mm)	.17	.24	.62	.79	.88	.96	.65
	1½" (38 mm)	.31	.50	.89	.98	1.01	1.01	.85
1.5 PCF (24 kg/m ³)	1" (25 mm)	.03	.28	.56	.82	.90	.94	.65
	1½" (38 mm)	.21	.51	.97	1.08	1.07	1.06	.90
	2" (51 mm)	.38	.89	1.08	1.14	1.11	1.08	1.05
2.0 PCF (32 kg/m ³)	1" (25 mm)	.06	.29	.67	.86	.94	.95	.70
	1½" (38 mm)	.26	.57	.97	1.06	1.06	1.04	.90
	2" (51 mm)	.22	.78	1.19	1.08	1.11	1.06	1.05

THERMAL CONDUCTIVITY (ASTM C 518) @ 75°F Mean

Density		Thermal Conductivity BTU-in. ft ² °F
.75 PCF	(12 kg/m ³)	0.28
1.00 PCF	(16 kg/m ³)	0.26
1.50 PCF	(24 kg/m ³)	0.24
2.00 PCF	(32 kg/m ³)	0.23
2.50 PCF	(40 kg/m ³)	0.22

FORMS AVAILABLE

Type	Thickness	Width*	Length [†]	Layer	
KN-75	1½"	(38 mm)	16"-32"*, 36"-48", 72"-96" (356-813 mm, 914-1219 mm, 1829-2438 mm)	80' (24.38 m)	Double
	2"	(51 mm)		115' (35.08 m)	Single
	2½"	(64 mm)		95' (28.96 m)	Single
	3"	(76 mm)		80' (24.38 m)	Single
	4"	(102 mm)		60' (18.29 m)	Single
	5"	(127 mm)		50' (15.24 m)	Single
	6"	(152 mm)		40' (12.19 m)	Single
KN-100	1"	(25 mm)	16"-32"*, 36"-48", 72"-96" (356-813 mm, 914-1219 mm, 1829-2438 mm)	95' (28.96 m)	Double
	1½"	(38 mm)		125' (38.10 m)	Single
	2"	(51 mm)		95' (28.96 m)	Single
	2½"	(64 mm)		75' (22.86 m)	Single
	3"	(76 mm)		60' (18.29 m)	Single
	4"	(102 mm)		45' (13.72 m)	Single
	5"	(127 mm)		35' (10.67 m)	Single
KN-150	1"	(25 mm)	16"-32"*, 36"-48", 72"-96" (356-813 mm, 914-1219 mm, 1829-2438 mm)	125' (38.10 m)	Single
	1½"	(38 mm)		85' (25.91 m)	Single
	2"	(51 mm)		60' (18.29 m)	Single
KN-200	1"	(25 mm)	16"-32"*, 36"-48", 72"-96" (356-813 mm, 914-1219 mm, 1829-2438 mm)	95' (28.96 m)	Single
	1½"	(38 mm)		60' (18.29 m)	Single
	2"	(51 mm)		45' (13.72 m)	Single
KN-200	1"	(25 mm)	16"-32"*, 36"-48", 72"-96" (356-813 mm, 914-1219 mm, 1829-2438 mm)	75' (22.86 m)	Single
	1½"	(38 mm)		50' (15.24 m)	Single