

# TYPE KN SERIES

## DESCRIPTION

Knauf Type KN Series Insulation is an amber blend of glass fibers bonded with a thermosetting resin.

## PACKAGING

Knauf Type 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)

- Knauf Type KN Series is 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.

### Stress Corrosion

- Complies to requirements of MIL-I-24244C, NRC 1.36, ASTM C 795.

### 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

Knauf Type KN Series 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 164.10919A9

## APPLICATIONS

KN Series products 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 with organic nutrients. 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. Air handling insulation used in the air stream must be discarded if exposed to water.

## NOTES

The chemical and physical properties of Knauf Type KN Series 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 those, or any other material under actual fire conditions.

Check with your Knauf regional office to assure information is current.

**FORMS AVAILABLE**

Type	Thickness	Width	Length <sup>†</sup>	Layer
KN-75	1 1/2" (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
	2 1/2" (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
	1 1/2" (38 mm)		125' (38.10 m)	Single
	2" (51 mm)		95' (28.96 m)	Single
	2 1/2" (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	6" (152 mm)	16"-32", 36"-48", 72"-96" (356-813 mm, 914-1219 mm, 1829-2438 mm)	30' (9.14 m)	Single
	1" (25 mm)		125' (38.10 m)	Single
	1 1/2" (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
	1 1/2" (38 mm)		60' (18.29 m)	Single
	2" (51 mm)		45' (13.72 m)	Single
KN-250	1" (25 mm)	16"-32", 36"-48", 72"-96" (356-813 mm, 914-1219 mm, 1829-2438 mm)	75' (22.86 m)	Single
	1 1/2" (38 mm)		50' (15.24 m)	Single

KN Series insulation is made-to-order and is available in rolls.  
 For bulk requirements or your requirements not listed, contact your Knair® sales representative.  
<sup>†</sup>16"-16" (356-457 mm) widths: 3 rolls/package. 19"-32" (483-813 mm) widths: 2 rolls/package.  
<sup>†</sup>Standard lengths available within ± 10% of length shown above.

**SOUND ABSORPTION COEFFICIENTS (ASTM C 423, TYPE A MOUNTING)**

Density	Thickness	1/2 Octave Band Center Frequency (cycles/sec.)						NRC
		125	250	500	1000	2000	4000	
.75 PCF (12 kg/m <sup>3</sup> )	1 1/2" (38 mm)	.20	.42	.82	.87	.94	.91	.75
1.0 PCF (16 kg/m <sup>3</sup> )	1" (25 mm)	.17	.24	.62	.79	.88	.96	.65
1.5 PCF (24 kg/m <sup>3</sup> )	1 1/2" (38 mm)	.31	.50	.89	.98	1.01	1.01	.85
	1" (25 mm)	.03	.28	.56	.82	.90	.94	.65
	1 1/2" (38 mm)	.21	.51	.97	1.09	1.07	1.06	.90
2.0 PCF (32 kg/m <sup>3</sup> )	2" (51 mm)	.38	.80	1.08	1.14	1.11	1.08	1.05
	1" (25 mm)	.06	.29	.67	.86	.94	.95	.70
	1 1/2" (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 Temperature**

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