

KINETICS™

Barrier Material

Model KNM

Description

Model KNM mass-loaded, limp, vinyl barrier materials are used for enclosing noise sources, either draped around equipment, suspended between equipment and quiet areas, or lagged to the equipment casing. KNM Barrier Materials can be used effectively to lag piping systems, reducing valves, etc., and are highly effective as crosstalk barriers and septums. KNM materials are available in 0.50 psf to 1.0 psf (2.5 to 4.9 kg/m²) surface weight, in 54-inch wide x 20-yard (1372 mm x 18.2 m) rolls, with acoustical ratings of STC-21 to STC-26. Product is easy to cut and install. The 2.0 psf (10.8 Kg/m²) barrier material, model KNM-200B or KNM-200AL comes in 47.5-inch wide x 10-yard (1206 mm x 9.1 m) rolls. See KNM-200AL datasheet for Insertion Loss sound data.

Kinetics Model KNM-C Clearview Noise Barriers are transparent, limp, heavy PVC and are recommended for use in applications where it is necessary to maintain visual contact, yet achieve a high degree of noise reduction. KNM-C materials are available in 48-inch wide by 20 yard (1219 mm x 18.2 m) rolls with acoustical ratings of STC-21 and STC-26.

Application

- Pipe and duct noise lagging
- Machinery cover Liners
- Ceiling noise barrier
- Crosstalk barrier
- Wall and door septum
- Noise Control curtain panels and enclosures
- OEM applications



Specifications

Barrier material shall meet the sound transmission loss and physical properties performance and the flammability standards listed in this brochure.

Barrier material shall have a minimum continuous operating temperature range from -40°F to 180°F (-40°C to 82.2°C), be resistant to water, oils, weak acids, alkalis, and fungi, and have excellent weather resistance.

Barrier material to be Model KNM by Kinetics Noise Control, Inc.

Physical Properties

Product	Weight Lbs/Sq. Ft (kg/m ²)	Nominal Thicknesses In. (mm)	Tensile Strength Lbs/In. (kg/mm)	Tear Strength Lbs/In. (kg/mm)	Flammability		
					Flameout, Sec.	Afterglow, Sec.	Char Length, In. (mm)
KNM-50C	0.50 (2.5)	0.05 (1.25)	201 (3.6)	70 (1.2)	3	0	0.5 (13)
KNM-50B	0.50 (2.5)	0.05 (1.25)	55 (1.0)	10 (0.2)	3	0	1.7 (43)
KNM-50RB	0.50 (2.5)	0.05 (1.25)	300 (5.3)	100 (1.8)	3	0	0.5 (2)
KNM-100C	1.00 (4.9)	0.10 (2.50)	400 (7.1)	140 (2.5)	3	0	0.5 (13)
KNM-100B	1.00 (4.9)	0.10 (2.50)	105 (1.9)	20 (0.4)	0	0	0.2 (5)
KNM-100RB	1.00 (4.9)	0.10 (2.50)	300 (5.3)	100 (1.8)	0	0	0.2 (5)
KNM-200B	2.00 (9.8)	0.20 (5.00)					

Sound Transmission Loss, dB

Product	125	250	500	1000	2000	4000	STC
KNM-50C	11	12	15	20	26	32	21
KNM-50B	11	12	15	20	26	32	21
KNM-50RB	11	12	15	20	26	32	21
KNM-100C	15	19	21	28	33	37	26
KNM-100B	13	17	21	28	33	40	26
KNM-100RB	15	19	21	28	33	37	26
KNM-200B	21	22	27	32	37	42	31

Note: Barrier materials used for pipe/duct lagging are tested as wrapped around the noise source (pipe/duct). See Insertion Loss Data per ASTM E1222-90 using Model KNM-100ALQ and KNM-200AL pipe/duct lagging.

Product Description

KNM-50C 1/2 PSF (2.5 kg/m²) **KINETICS™** Clearview barrier material, nonloaded and nonreinforced. Clearview is very limp, tough and water clear. Available in 48-inch x 20 yard (1219 mm x 18.2 m) rolls.

KNM-100C 1 PSF (4.9 kg/m²) **KINETICS™** Clearview barrier material, nonloaded and nonreinforced. Clearview is very limp, tough and water clear. Available in 48-inch x 20 yard (1219 mm x 18.2 m) rolls.

KNM-50B 1/2 PSF (2.5 kg/m²) **KINETICS™** limp barrier material, unreinforced and loaded with barium sulphate. Available in black color in 54-inch x 20 yard (1372 mm x 18.2 m) rolls.

KNM-100B 1 PSF (4.9 kg/m²) **KINETICS™** limp barrier material, unreinforced and loaded with barium sulphate. Available in black color in 54-inch x 20 yard (1372 mm x 18.2 m) rolls.

KNM-200B 2 PSF (10.8 kg/m²) **KINETICS™** limp barrier material, unreinforced and loaded with barium sulphate. Available in black color in 47.5-inch x 10 yard (1206 mm x 9.1 m) rolls. See Insertion Loss data on KNM-200AL datasheet.

KNM-50RB 1/2 PSF (2.5 kg/m²) **KINETICS™** limp barrier material, reinforced with a fiberglass screen, and loaded with barium sulphate. Available in light tan color in 54-inch x 20 yard (1372 mm x 18.2 m) rolls.

KNM-100RB 1 PSF (4.9 kg/m²) **KINETICS™** limp barrier material, reinforced with a fiberglass screen, and loaded with barium sulphate. Available in grey color in 54-inch x 20 yard (1372 mm x 18.2 m) rolls.



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