

# KINETICS®

## Sound Absorber/Noise Barrier Composites Model KBC

### Description

Kinetics KBC Sound Absorber/Noise Barrier Composites are thin, rugged, high-performing, flexible acoustical quilt and vinyl composites designed to solve noise control applications where sound absorption and sound blocking must be increased. KBC composites are available with 0.50, 1.0, or 2.0 psf (2.5, 4.9 or 9.8 kg/m<sup>2</sup>) mass loaded vinyl barriers with a quilted aluminum cloth faced fiberglass absorber on one or both sides of the barrier.

KBC-50RBQ and 100RBQ are used when a noise source is located on one side of the acoustical material. Sound originating from the source is initially absorbed by the quilted fiberglass and then blocked by the vinyl barrier. The reflected sound waves are further dissipated by the fiberglass absorber.

KBC-50BQQ, 100BQQ, and 200BQQ perform in the same manner except that they are designed to absorb sound on both sides of the composite, with one side acting as a decoupling layer.

Kinetics KBC Composites can be installed free hanging or attached directly to a noise-radiating surface. KBC-50BQQ, 100BQQ, and 200BQQ are ideal as an internal lining on any rigid structure that requires significant transmission loss improvement. In this manner, the limp mass vinyl barrier is decoupled from the structure by the fiberglass absorber which allows the barrier to vibrate freely thus increasing sound transmission loss performance.



### Application

KBC Sound Absorber/Noise Barrier Composites are ideal for many diverse industrial and OEM applications where both reverberation control and sound transmission loss are required. Industrial applications include enclosures, machinery cover linings, and additions to existing walls or barriers. Architectural applications include crosstalk barriers, room dividers, ceiling barriers, and pipe and duct wrap.

### Specification

Sound Absorber/Noise Barrier composites shall be of the description and acoustical data listed in this brochure. Absorber/Barrier composites shall be model KBC by Kinetics Noise Control.

## Sound Transmission Loss (dB)

ASTM E90-90

Product	Weight		Frequency (Hz)						
	lb/ft <sup>2</sup>	kg/m <sup>2</sup>	125	250	500	1000	2000	4000	STC*
KBC-50RBQ	0.7	3.4	6	12	17	27	38	46	23
KBC-100RBQ	1.3	6.4	10	16	22	30	42	49	27
KBC-50BQQ	1.0	4.9	7	12	18	31	46	50	24
KBC-100BQQ	1.5	7.4	11	16	28	41	50	53	29
KBC-200BQQ	2.5	12.5	16	20	30	40	51	55	33

\*Per ASTM designation E413-87

## Absorption Characteristics

Product	Octave Band Frequency (Hz)						
	125	250	500	1000	2000	4000	NRC
Q - 1" Quilt	0.12	0.47	0.85	0.84	0.64	0.62	0.70
Q2 - 2" Quilt	0.08	0.33	0.79	1.02	1.04	1.02	0.80

## Product Types

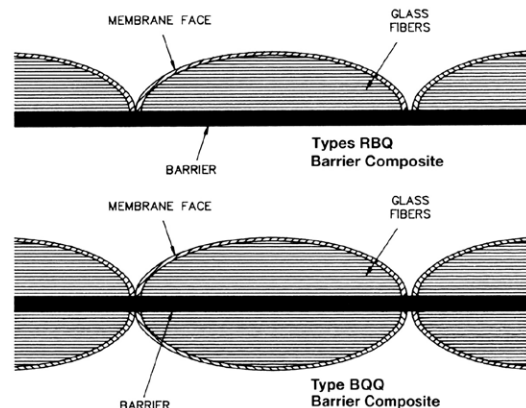
**KBC-50RBQ** 0.50 psf (2.5 kg/m<sup>2</sup>) Limp Barrier Material, reinforced with a fiberglass screen, loaded with barium sulphate, with a quilted faced fiberglass absorber on one side. The barrier and absorber are silver in color. Available in 54" x 25' (1.37m x 7.62m) rolls. Nominal thickness 1" (25mm).

**KBC-100RBQ** 1.0 psf (4.9 kg/m<sup>2</sup>) Limp Barrier Material, reinforced with a fiberglass screen, loaded with barium sulphate, with a quilted faced fiberglass absorber on one side. The barrier and absorber are silver in color. Available in 54" x 25' (1.37m x 7.62m) rolls. Nominal thickness 1" (25mm).

**KBC-50BQQ** 0.50 psf (2.5 kg/m<sup>2</sup>) Limp Barrier Material, loaded with barium sulphate with a quilted faced fiberglass absorber on both sides. The absorber is silver in color. Available in 48" x 25' (1.22m x 7.62m) rolls. Nominal thickness 2" (51 mm).

**KBC-100BQQ** 1.0 psf (4.9 kg/m<sup>2</sup>) Limp Barrier Material, loaded with barium sulphate, with a quilted faced fiberglass absorber on both sides. The absorber is silver in color. Available in 48" x 25' (1.22m x 7.62m) rolls. Nominal thickness 2" (51 mm).

**KBC-200BQQ** 2.0 psf (9.8 kg/m<sup>2</sup>) Limp Barrier Material, loaded with barium sulphate, with a quilted faced fiberglass absorber on both sides. The absorber is silver in color. Available in 48" x 12.5' (1.22m x 7.62m) rolls. Nominal thickness 2" (51 mm).



Vynils and fiberglass facings are available in other colors. Consult Kinetics Noise Control for availability.



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