

# Barrier & Quilted Fiberglass Absorber Composites



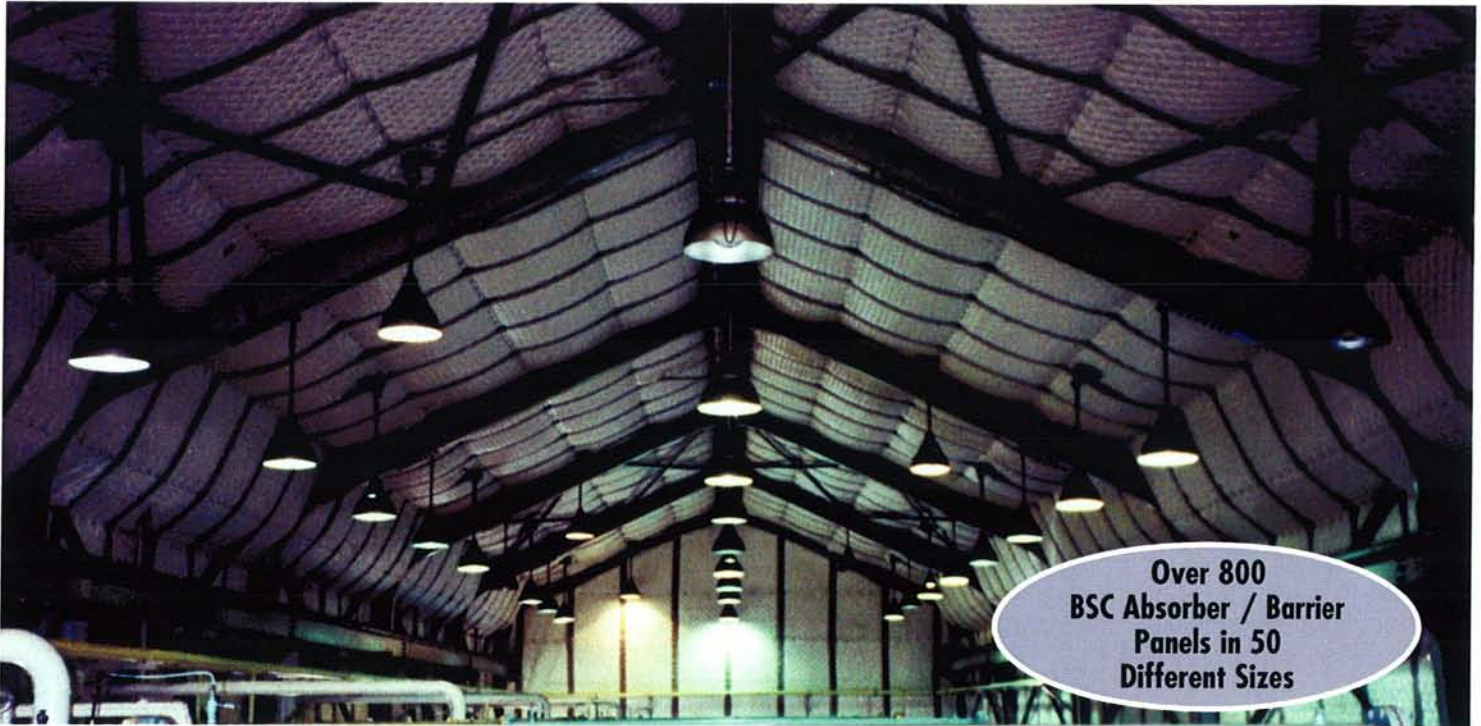
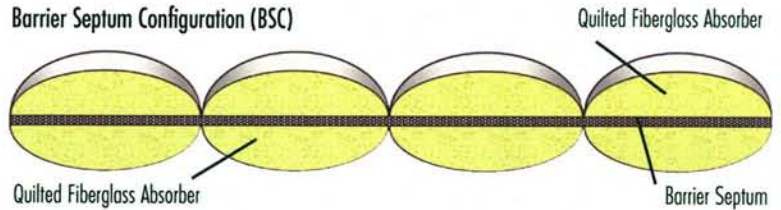
- FEATURES:**
- ◆ Maximum noise reduction by combining sound absorber and noise barrier
  - ◆ Sound Absorption Rating to NRC-1.05
  - ◆ Transmission Loss Rating to STC-32
  - ◆ Offered in two styles with a variety of combinations

- ◆ Acoustical liners, jackets, wraps and panels
- ◆ Available in curtain panels, bound or unbound rolls, custom fabrications or die-cut pieces
- ◆ Flexible composites conform to any shape
- ◆ Fire safe and low smoke emissions per ASTM E-84, Class 1



## "BSC" Style: Barrier Septum Composite

Sound Seal's Industrial Division "BSC" composite features a non-reinforced loaded vinyl noise barrier septum (middle) with a quilted fiberglass sound absorber on both sides. Ideally suited as an acoustical liner, the inner layer of quilted fiberglass decouples the barrier from the surface to improve its noise blocking ability while the outer layer adds sound absorption to the treated environment.



Over 800  
BSC Absorber / Barrier  
Panels in 50  
Different Sizes

Industrial "BSC" Acoustical Panels were used to line the interior of a large natural gas compressor station. The sound absorptive quilted fiberglass portion of the composite panel reduced the noise levels inside the building by 6 to 8 decibels, and combined with the noise barrier septum and quilted fiberglass decoupler on the opposite side of the product, produced a 15 dB(A) noise reduction outside of the building. See Sound Off Case History Vol. 1, No.1 for additional information.

### Also Available As:

- ◆ Rolls with edges bound and sewn with matching edge binding
  - ◆ Unbound rolls-edges exposed
  - ◆ Standard roll size 4'W x 25'L
  - ◆ Curtain panels with grommets at top and Hook & Loop fasteners sewn along edges
  - ◆ Liner panels with bound edges
  - ◆ Die-cut pieces, custom fabrications
  - ◆ Types of facing material on quilted fiberglass:
    - VCFC — Vinyl - Coated - Fiberglass - Cloth
    - SCFC — Silicone - Coated - Fiberglass - Cloth
    - NPS — Non-Woven - Porous Scrim
    - GUILFORD — Decorative Fabric
  - ◆ Available Barriers:
    - BSC products utilize a flexible 1 lb. PSF non-reinforced loaded vinyl noise barrier septum (B-10NR).
    - Also available with a 2 lb. PSF or 1/2 lb. PSF barrier
- See back page for specifications

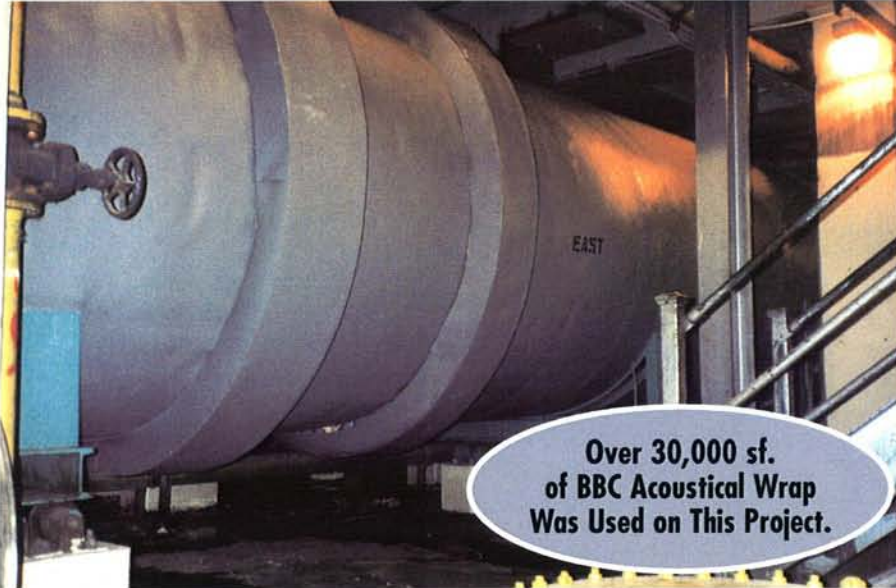
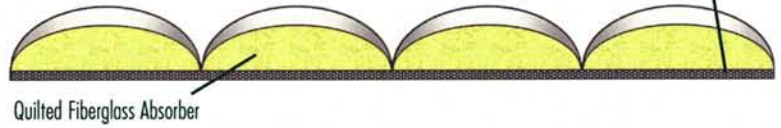




# "BBC" Style: Barrier Backed Composite

Sound Seal's Industrial Division "BBC" composite features a reinforced loaded vinyl noise barrier with a quilted fiberglass sound absorber on one side. The rugged durable exterior barrier is commonly used as a wrap or acoustical jacket due to its ability to conform to any shape. The quilted fiberglass layer decouples the noise barrier to enhance its acoustical performance.

Barrier Backed Configuration (BBC)



**Over 30,000 sf.  
of BBC Acoustical Wrap  
Was Used on This Project.**

## Also Available As:

- ◆ Rolls with edges bound and sewn with matching edge binding
- ◆ Unbound rolls with quilted fiberglass edges exposed
- ◆ Standard roll size 54" wide barrier, with 48" wide quilt, 25' long
- ◆ Curtain panels with grommets at top and Hook & Loop fasteners sewn along edges
- ◆ Custom fabricated acoustical jackets
- ◆ Die-cut pieces

Industrial "BBC" acoustical composite was used as an acoustical wrap on large diameter piping at a Waste Water Treatment facility. The durable reinforced barrier exterior combined with the quilted fiberglass decoupler offers maximum longevity as well as a 15 dB(A) noise reduction.

## Barrier:

- ◆ BBC products utilize a flexible 1 lb. PSF center reinforced barrier back (B-10R). Available in standard gray color. Tan and light blue are also available. 2 lb. PSF and 1/2 lb. PSF reinforced barriers are optional
- ◆ See back page for types of facing available on quilted fiberglass and specifications



BBC-13-2" acoustical jacket custom fabricated to fit blower. Hook and Loop fasteners allow for quick and easy installation and removal.



The most effective noise reduction products combine both sound absorption and noise barrier properties. Tested under strict compliance to appropriate ASTM standards, we offer the following results.

### Acoustical Data:

Sound Transmission Loss (dB) Octave Band Center Frequencies (Hz)									
Product	Thickness (In./Nom.)	Wt. (Lb./S.F.)	125	250	500	1000	2000	4000	STC
BBC-13-2"	2	1.5	13	20	29	40	50	55	32
BBC-13	1	1.3	11	16	24	30	35	35	27
BBC-14-2"	2	1.5	13	20	29	40	50	55	32
BBC-14	1	1.3	11	16	24	30	35	35	27
BSC-25	2	1.5	12	16	27	40	44	43	29
BSC-25-2B	2	2.5	19	22	28	40	56	61	33
BSC-31	2	1.5	12	16	23	33	38	39	27

Per ASTM: E 90

### Barrier Specifications:

Barrier Component	Style	Weight (Lb./Sq. Ft.)	Thickness (Inches)	Composite
B - 10 NR	Non-Reinforced	1	.107	BSC
B - 5 NR	Non-Reinforced	1/2	.042	BSC
B - 20 NR	Non-Reinforced	2	.225	BSC
B - 10 R	Reinforced	1	.090	BBC
B - 5R	Reinforced	1/2	.050	BBC

### Available Facings on Quilted Fiberglass:

- ◆ Vinyl - Coated - Fiberglass - Cloth (Standard)
  - Colors: Gray, White, Tan or Black
  - Temp. Range: -20°F to + 180°F
  - Durable, resists most chemicals
- ◆ Silicone - Coated - Fiberglass - Cloth (High Temp)
  - Color: Silver
  - Temp. Range: -90°F to + 550°F
  - Used on high temperature applications
  - Also suitable for outdoor UV exposure
- ◆ Non-woven Porous Scrim (Economy)
  - Colors: Off White
  - Temp. Range: -40°F to + 350°F
  - Readily accepts any adhesive
- ◆ Guilford fabric facing (Decorative)
  - Colors: Over 60 colors to choose from (see swatch booklet)
  - Temp. Range: -20°F to + 350°F
  - FR 701 Fabric is Class 1 Flammability Rated
  - For commercial or architectural applications

For additional information see:

- SS101 Curtain Systems
- SS104 Flexible Barriers
- SS106 Quilted Fiberglass Absorbers

Sound Absorption Data-Absorber Component Random Incident Sound Absorption							
Product	125	250	500	1000	2000	4000	NRC
BBC 1" thick	.12	.47	.85	.84	.64	.62	.70
BBC 2" thick	.07	.27	.96	1.13	1.08	.99	.85
BBC 4" thick	.21	.89	1.09	1.17	1.13	1.07	1.05
BSC 2" thick	.19	.99	.96	.80	.57	.33	.85

### Also Available from Sound Seal:

The tables on this page refer to some of the more common BSC and BBC composites. There are many others which combine the wide variety of barriers and quilted fiberglass absorbers available to address any industrial application. For example, BSC-26 utilizes a silicone-coated-fiberglass cloth faced quilted fiberglass absorber (instead of the vinyl-coated-fiberglass cloth faced quilted fiberglass on BSC-25) combined with a 1 lb. PSF loaded vinyl noise barrier septum for high temperature application.

Likewise, BBC-14 or BBC-14-2" incorporates the silicone facing, instead of the vinyl-faced BBC-13 or BBC-13-2", combined with a 1 lb. PSF reinforced loaded vinyl backing. In addition to high temperature applications, these U.V. resistant curtain panels are suitable for outdoor applications.

Another example such as BSC-25-2B substitutes a 2 lb. PSF noise barrier for the 1 lb. PSF version in BSC-25 to improve acoustical performance, especially at lower frequencies.

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