CONTROLLING NOISE IN EVERY ENVIRONMENT

OEM ACOUSTICAL PRODUCTS

Quilted Fiberglass Absorbers
Noise Barrier & Quilted Fiberglass Absorber Composites
Vibration Damping & Foam Composites
Quilted fiberglass absorbers are fire rated, high performance acoustical fiberglass blankets that are used to reduce reverberant (reflected) airborne noise energy in many diverse OEM and industrial applications. They are an excellent alternative to urethane foams since they are fire rated, exhibit low smoke emissions and possess high mechanical strength. Additionally, they have a wide range of facing options, temperature limits, can be cleaned, and are unaffected by moisture, humidity, dust, dirt, oils and most chemicals. Quilted fiberglass absorbers are easily installed, will not degrade and have extremely long service lives.

**APPLICATIONS**
- Machinery housings
- Electrical cabinets
- Engine compartments
- Equipment enclosures
- Firewalls
- Hoods
- Operator cabs

**FEATURES**
- Excellent low frequency absorption
- Low smoke & flame
- Extremely long service life
- Pressure Sensitive (PSA) backing or mechanical fasteners available
- Lightweight
- Water resistant; washable
- Available combined with noise barrier or damping sheet to combat difficult problems that one material alone cannot handle

Quilted fiberglass absorbers have been used extensively as sound absorbing liners by original equipment manufacturers in almost any place where generated sound energy can build up and a reduction of noise is desirable or required. Original equipment manufacturers of portable generator sets meet and surpass their noise reduction requirements by installing die-cut quilted fiberglass acoustical panels.
Vinyl Coated Fiberglass Cloth (VCFC) Standard
- Breaking Strength (warp & fill): 150 lb./in. & 100 lb./in.
- Tear Strength (warp & fill): 8lb. & 7lb. respectively
- Continuous Service Temperature Limits: -20F to 180 F
- Moisture Permeability: 0.5 Perms
- Color: Gray, White, Tan, Black (special colors available upon request)
- Other: Passes UL-181 Heat Aging Test

Fiberglass Batting
- 1.6 lb./cu. ft. density, 4-6 microns
- Thermal “R” Rating: 1” th. R=4, 2” th R=8
- Thermal “K” Factor: .25

Silicone Coated Fiberglass Cloth (SCFC) – High Temperature
- Breaking Strength (warp & fill): 60 lb./in. and 55 lb./in.
- Tear Strength (warp & fill): 5 lb. respectively
- Continuous Service Temperature Limits: -90F to 450F
- Moisture Permeability: 0.5 Perms
- Color: Gray

Non-Woven Porous Scrim Fabric (NPS) – Backing
- Composition: 100% non-woven nylon
- Fabric Weight: 0.7 oz. per square yard
- Tear Strength (warp & fill): 6 lb. & 5 lb. respectively
- Temperature Limit: Continuous exposure to 400F

Consult factory for decorative fabric facings, optional quilting patterns, laminated facings, special size panels and die cut components.
All Noise Control mass loaded vinyl noise barrier & quilted fiberglass absorber composites are used for original equipment, industrial, and architectural applications wherever both sound absorption or barriers, alone, are inadequate to satisfy noise reduction objectives. When individual components are configured as a composite, they retain many of their original characteristics, and generally, the resulting product exhibits the best properties of each material.

**DIE CUT PARTS**

- Die cutting ensures consistent fit
- Easier installation
- Edges are stitch bound

**ROLL GOODS**

- 25’ lengths, custom lengths available
- Standard 48” wide, custom widths available
- Available with finished edges bound & sewn, or with unbound edges

School bus manufacturer insists on BBC-14, in the doghouse, to meet their demanding criteria for both noise reduction and minimal flame and smoke emissions.

BSC acoustical composites are supplied in roll form and die-cut parts for rail car walls and floors.

Many motorcoach manufacturers utilize BSC-25 on the firewall, to abate both interior noise levels and federally mandated pass-by requirements.
Major manufacturers of centrifugal and positive displacement blowers utilize BBC 13-2" as a custom acoustical jacket to dramatically reduce their high noise levels. Hook and loop fasteners allow for quick and easy installation and removal.

Engine cover treated with BSC-26 for Marine application.
**VIBRATION DAMPING & FOAM COMPOSITES**

**VBD-10 DAMPING COMPOUND**

All Noise Control VBD-10 is a visco elastic damping compound for the treatment of vibrating metal, wood, glass, ceramic and most plastic surfaces. This material imparts vibration damping and a shift in the dominant frequency. The resulting structure borne noise reduction also provides a means of improving the noise transmission loss in many applications.

All Noise Control VBD-10 is especially recommended for new construction and equipment requiring superior flame and smoke resistant materials to meet local codes and ordinances. Ideal for OEM applications including bus, rail and marine.

**APPLICATIONS**

- Ships and boats
- Rapid transit cars
- Fan and blower housings
- Metal partitions & roof panels
- Bins, chutes, hoppers & machine guards
- Stadium seating

**FEATURES**

- Low flame spread & smoke development rating per ASTM E-84-91A, ASTM E-162, ASTM E-622
- Meets FMVSS 302
- Non-hazardous, non-toxic
- Improves fatigue life & safety factor of treated surfaces
- Provides dielectric isolation & thermal insulation
- Unaffected by hydrocarbons such as oils
- Resists alkalis, acids, corrosive gases & grease
- Easily troweled, acids, corrosive gases & grease
- Tough, durable, attractive coating in place of paint

**AVAILABLE IN:**

- 5 GALLON PAILS (60 LBS)
- 55 GALLON DRUMS (600 LBS)

### Physical Properties:

**Rec. Max. Service Temp. 325° F**

<table>
<thead>
<tr>
<th>Property</th>
<th>ASTM E-84</th>
<th>Flame Spread</th>
<th>Smoke Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>ASTM E-662</td>
<td>Smoke Index 2</td>
<td>Smoke Index 1</td>
</tr>
<tr>
<td></td>
<td>ASTM E-162</td>
<td>Flame Spread</td>
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<table>
<thead>
<tr>
<th>Property</th>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>ASTM D-92</td>
<td>wet none</td>
</tr>
<tr>
<td>Fire Paint</td>
<td>ASTM D-92</td>
<td>wet none</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Remains tenacious &amp; flexible over a wide range of temperatures</td>
<td></td>
</tr>
<tr>
<td>Storage Temp.</td>
<td>40° F &amp; above</td>
<td></td>
</tr>
<tr>
<td>Shelf Life</td>
<td>Approximately one year in a tightly sealed container</td>
<td></td>
</tr>
<tr>
<td>Colors</td>
<td>Light gray or tan</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Totally odorless when dry</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dry Thickness</th>
<th>Spray</th>
<th>SQ FT/Gallon</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16&quot;</td>
<td>50</td>
<td>35 25</td>
</tr>
<tr>
<td>1/8&quot;</td>
<td>40</td>
<td>25 20</td>
</tr>
<tr>
<td>3/16&quot;</td>
<td>30</td>
<td>20 15</td>
</tr>
</tbody>
</table>
**SOUNDAMP E VIBRATION DAMPING SHEET**

*Soundamp E* is a self-adhesive pad used for sound and vibration damping on metal panels. The adhesive side is smooth, giving complete contact with the underlying surface without air pockets or channels. *Soundamp E* is odorless, wear-resistant and impregnated to prevent the absorption of water. Both pad material and adhesive can withstand temperatures between -30° and +120° C (-22° F to +248° F) and are highly resistant to aging.

Soundamp E should be cut to the desired size and shape before the backing paper is removed. It may be cut with scissors, knife or die. Remove dust, grease, moisture and other foreign matter from the application surface. Peel off the backing paper. The simplest application technique is to bend the pad slightly and attach it along its shortest edge. The pad is then pressed firmly into place, preferably with a roller for larger pieces. This reduces the risk of leaving air pockets, which reduces the sound damping capacity. The temperature of the pad and application surface should not be below room temperature during fitting.

**APPLICATIONS**
- Buses & railroad cars
- Ships & boats
- Generator enclosures
- Air compressors
- Off highway equipment
- Bins, chutes, hoppers & machine guards
- Relay cabinets
- Doors, bins & panels

**FEATURES**
- Non-hazardous, non-toxic
- Meets FMVSS 302 & UL94 HBF
- Improves fatigue life & safety factor of treated surfaces
- Resistant to water & mineral oils
- Temperature range 22° F to 248° F
- High acoustic loss factor

**SPECIFICATIONS**
- Color: Black
- Thickness: 0.080" oz
- Weight: 6.2 / sq ft
- Asphalt saturation: 50% +/-10%
- Temperature range: -30% to +120°C (-22° F to +248° F)
- Chemical resistance: Resistant to water & mineral oils
- Adhesive peel strength: 15n/cm 8.6lbs /on steel sheet at +20°C (86°F)
- Vibration damping: GM Test Method 9232P
- Specification min: NC of 0.025 in 0c to 20c interval
  - at 0c = 0.162
  - at 15c = 0.173
  - at 30c = 0.103
  - at 45c = 0.069
  - at 60c = 0.049
- Flammability: FMVSS 302 6.1 mm/min. UL94 HBF approved
- Sheet size: 54" x 40" die cut parts available
- Storage life: 6 months

![Loss factor as a function of temperature for Soundamp E applied to a 1 mm sheet at frequencies of 200 Hz and 1000Hz](image)

**LOSS FACTOR**

![Loss factor graph](image)
VIBRATION DAMPING & FOAM COMPOSITES

POLYURETHANE & MELAMINE FOAM & FOAM COMBINATIONS

All Noise Control acoustical foam composites combine the highly effective sound absorptive properties of foam products with All Noise Control flexible noise barriers. The result is a line of noise control products that combat difficult problems one material alone cannot handle. Polyurethane or melamine foams of various thickness are bonded to any of the All Noise Control barriers in either the barrier backed or barrier septum configurations. Depending on the noise control application, any of the All Noise control foam products or barriers may be purchased individually. For harsh environmental conditions, all of the foam products and barrier combinations are available with film facings for protection. Foam absorbers and foam/barrier composites are available with pressure sensitive adhesive backing.

APPLICATIONS
- Truck cab floors & headliners
- Compressor & generator engine housings
- Recreational vehicles
- Sheet metal enclosures

FEATURES
- Combines noise barrier, absorber, damper
- Non-shrinking, noncorrosive
- Easy to cut, fit and install
- Die cutting to size available
- Film-faced styles to resist oils, greases, dust and moisture
- Meets UL-94-HF-1, FMVSS 302 flammability ratings

Typical Random Incidence Absorption Coefficients
Frequency – Cycles per second (Hz)

<table>
<thead>
<tr>
<th>Thickness (inches)</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
<th>NRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>0.05</td>
<td>0.10</td>
<td>0.20</td>
<td>0.30</td>
<td>0.65</td>
<td>1.00</td>
<td>0.31</td>
</tr>
<tr>
<td>1/2</td>
<td>0.09</td>
<td>0.12</td>
<td>0.23</td>
<td>0.65</td>
<td>0.87</td>
<td>0.96</td>
<td>0.47</td>
</tr>
<tr>
<td>1</td>
<td>0.23</td>
<td>0.41</td>
<td>0.59</td>
<td>0.98</td>
<td>0.82</td>
<td>0.93</td>
<td>0.70</td>
</tr>
<tr>
<td>2</td>
<td>0.50</td>
<td>0.75</td>
<td>0.97</td>
<td>0.93</td>
<td>0.95</td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>4</td>
<td>0.69</td>
<td>0.81</td>
<td>0.91</td>
<td>0.92</td>
<td>0.95</td>
<td>0.98</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Explanation: The data is conventional 2 lb./ft. polyurethane foam. We have additional types of acoustical foams available which will improve sound absorption at specific frequencies. Let our engineers discuss your application with you. If another type of foam will improve the product, we will make it available to you.

Flexible Noise Barriers
Noise Transmission Loss (dB) per Octave Band (Hz)

<table>
<thead>
<tr>
<th>Barriers</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
<th>ST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 lb PSF</td>
<td>13</td>
<td>17</td>
<td>22</td>
<td>26</td>
<td>32</td>
<td>37</td>
<td>26</td>
</tr>
<tr>
<td>3/4 lb PSF</td>
<td>11</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>34</td>
<td>23</td>
</tr>
<tr>
<td>1/2 lb PSF</td>
<td>8</td>
<td>13</td>
<td>17</td>
<td>22</td>
<td>27</td>
<td>31</td>
<td>20</td>
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