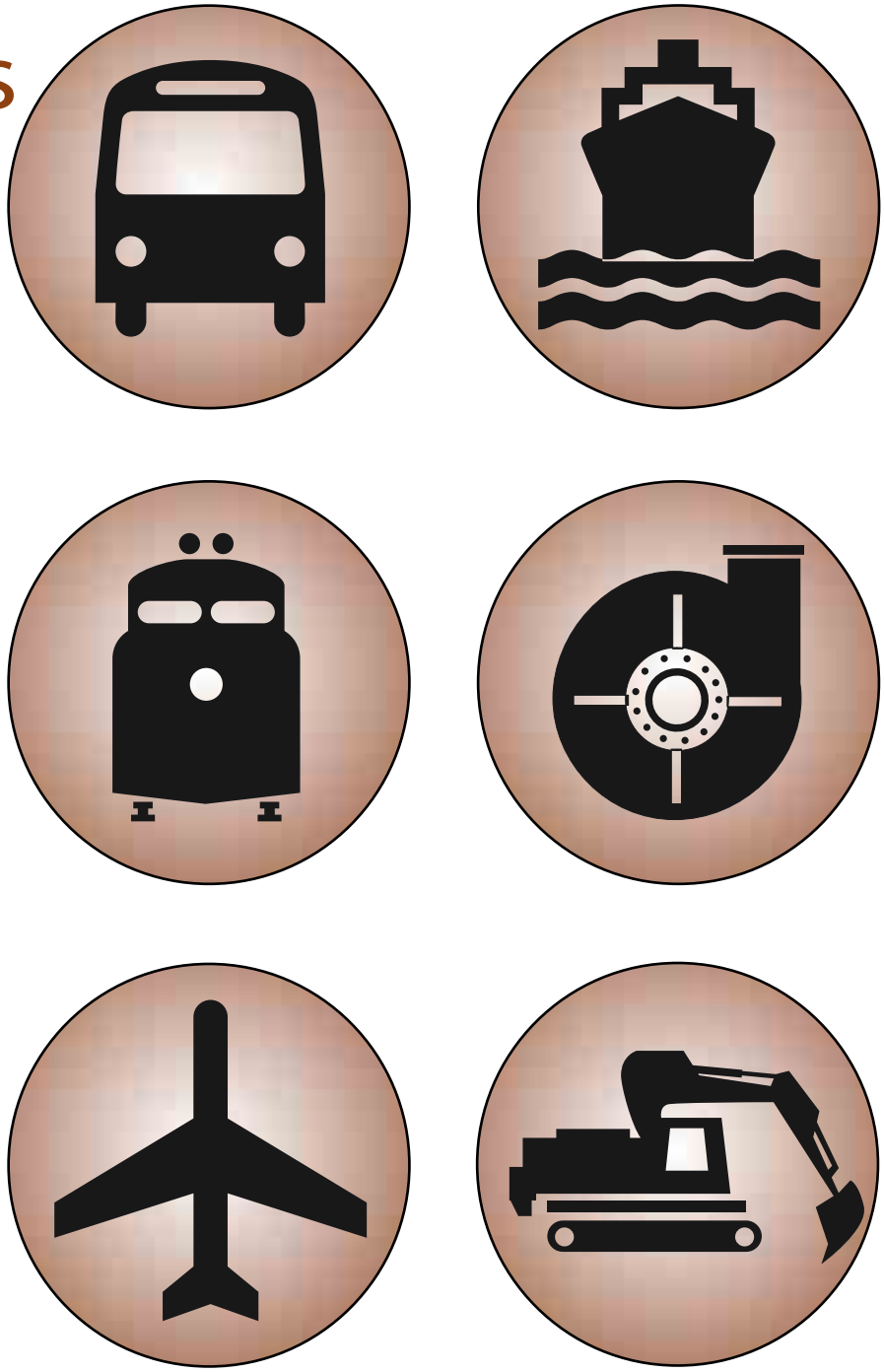
Barricade™

NOISE CONTROL PRODUCTS

Vibration Damping And Foam Composites

OEM



SHAVER INDUSTRIES INC.

SOFT-WALL & MACHINE PROTECTION SOLUTIONS

VBD-10 Damping Compound

Shaver Industries' VBD-10 is a water based 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 provides a means of improving the noise transmission loss in many applications.

Shaver Industries' 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 and roof panels
- Bins, chutes, hoppers, machine guards
- Stadium seating

Easily brushed, troweled or sprayed on surfaces, this highly effective damping compound may be painted to make suitable for outdoor as well as indoor usage.

Features:

- Low flame spread and smoke development rating per ASTM E-84-91A, ASTM E-162, ASTM E-662
- Meets FMVSS 302
- Non-hazardous, non-toxic
- Improves fatigue life and safety factor of treated surfaces
- Provides dielectric isolation and thermal insulation
- Unaffected by hydrocarbons such as oils
- Resists alkalis, acids, corrosive gases, grease, detergents and water
- Easily troweled, brushed or sprayed on surfaces
- Tough, durable, attractive coating in place of paint

Physical Properties:

Rec. Max. Service Temp.		325° F
Flammability	ASTM-E-84	Flame Spread 0 Smoke Index 0
	ASTM-E-662	Smoke Index 2
	ASTM-E-162	Flame Spread 1
Flash point	ASTM-D-92 wet none	
Fire Point	ASTM-D-92 wet none	
Flexibilty	Remains tenacious and flexible over a wide range of temperatures	
Storage Temp.	40 °F and above	
Shelf life	Approximately one year in a tightly sealed container	
Colors	Light Gray or Tan	
Odor	Totally odorless when dry	

Typical Coverage:

Dry Thickness	Spray	Square Ft./Gal. Brush	Trowel
1/ 16"	50	35	25
1/ 8"	40	25	20
3/ 16"	30	20	15

Ordering Information:

Available in…	Weight
5 Gallon Pails	60 lbs.
55 Gallon Drums	600 lbs.

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° C and +120° C (-22° F to +248° F) and are highly resistant to aging.

Applications:

- Buses and railroad cars
- Ships and boats
- Generator enclosures
- Air Compressors
- Off Highway Equipment
- Bins, chutes, hoppers, machine guards
- Relay cabinets
- Doors, bins, panels

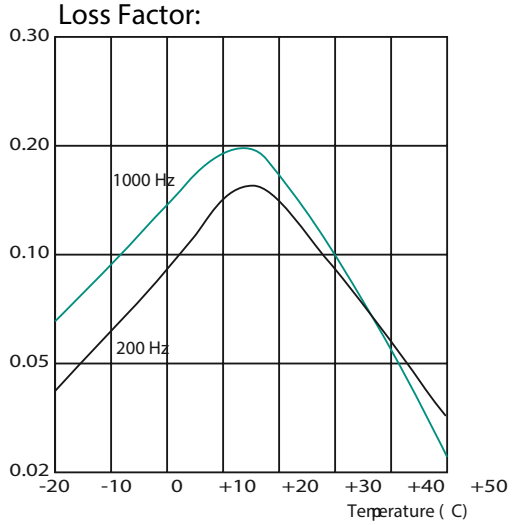
Specifications:

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 and mineral oils	
Adhesive peel strength:	15n/cm 8.6 lbs/" 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	

Features:

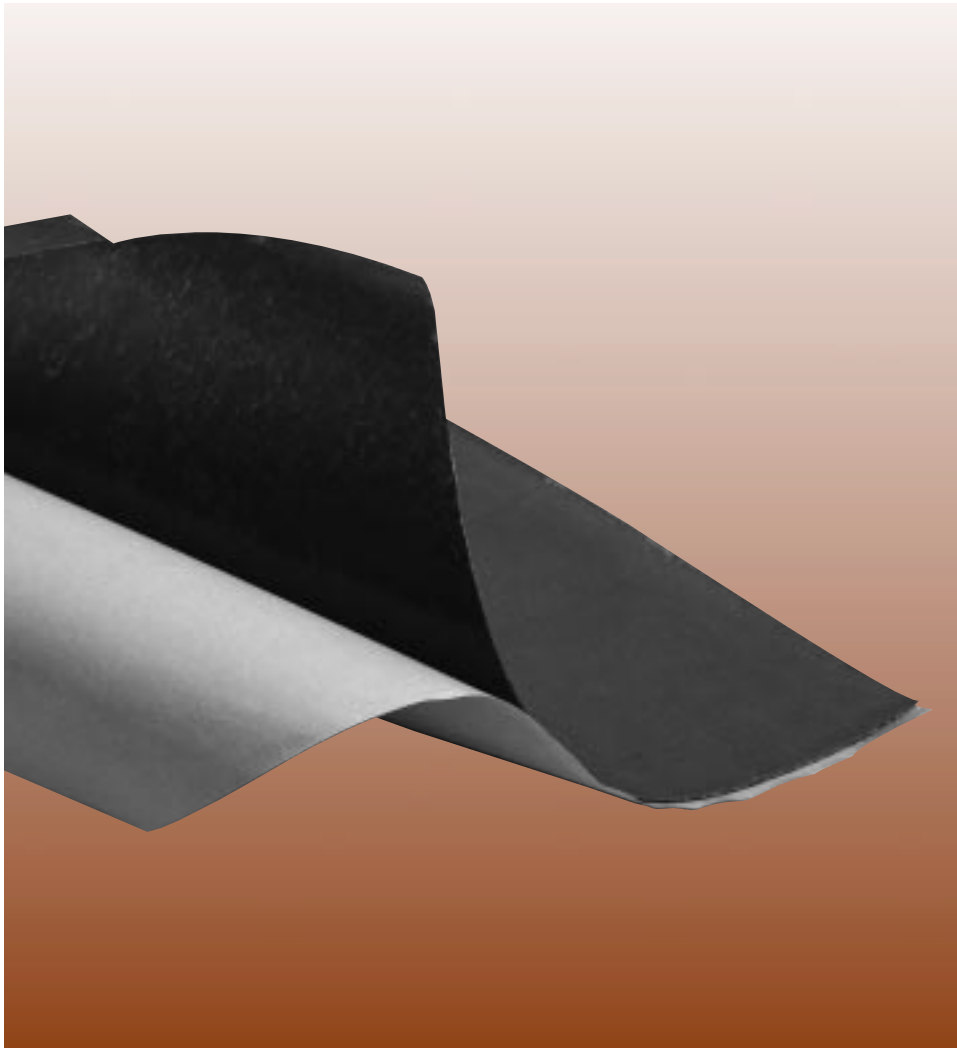
- Non-hazardous, non-toxic
- Meets FMVSS 302 and UL94 HBF
- Improves fatigue life and safety factor of treated surfaces
- Resistant to water and mineral oils
- Temperature range -22° F to +248° F
- High acoustic loss factor

Loss Factor:



Loss factor as a function of temperature for Soundamp E applied to 1 mm sheet at frequencies of 200 Hz and 1000 Hz.

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 reduce the sound damping capacity. The temperature of the pad and application surface should not be below room temperature during fitting.



Polyurethane Foam and Foam Combinations

Shaver Industries acoustical foam composites combine the highly effective sound absorptive properties of Sound Seal acoustical foam with the significant transmission loss properties of Sound Seal flexible barriers. The result is a line of noise control products that combat difficult problems one material alone cannot handle.

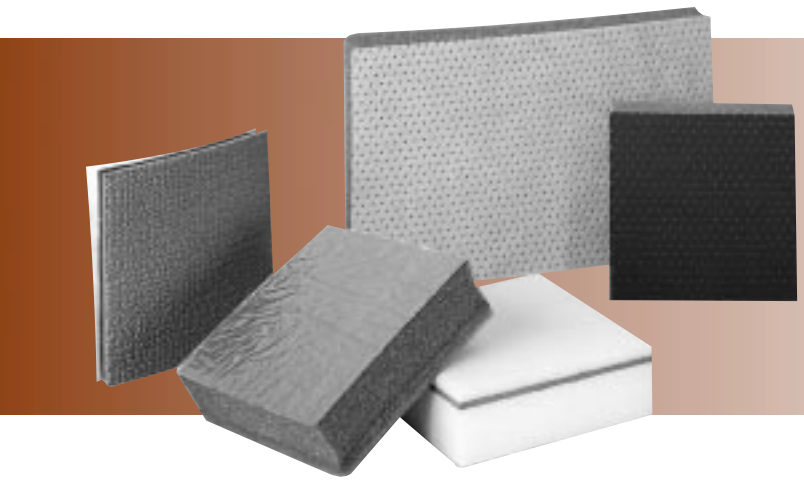
Polyurethane foams of various thickness are bonded to any of the Sound Seal barriers in either the barrier backed or barrier septum configurations.

Depending on the noise control application, any of the Sound Seal foam products or barriers may be purchased individually. For harsh environmental conditions, all of the foam products and barrier combinations may be purchased with thin film facings for protection. Pressure sensitive adhesives are recommended only for small die cut pieces. Large sections should be applied with mechanical fasteners or contact adhesive.

Typical Random Incidence Absorption Coefficients:

Thickness (inches)	Frequency - Cycles per Second (Hz)						
	125	250	500	1000	2000	4000	NRC
1/4	0.07	0.10	0.20	0.30	0.65	1.00	0.31
1/2	0.09	0.12	0.23	0.65	0.87	0.96	0.47
1	0.23	0.41	0.59	0.98	0.82	0.93	0.70
2	0.50	0.75	0.97	0.93	0.95	0.90	0.90
4	0.69	0.80	0.91	0.92	0.95	0.98	0.90

Explanation: The data is for conventional 2 lb./ft^3. polyurethane foam. We have additional types of polyurethanes 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 Barriers:

Barriers	Noise Transmission Loss (dB) per Octave Band (Hz)						STC
	125	250	500	1000	2000	4000	
1lb. PSF	13	17	22	26	32	37	26
3/4 lb. PSF	11	16	20	25	30	34	23
1/2 lb. PSF	8	13	17	22	27	31	20

Distributed By

Applications:

- Truck cab floors and headliners
- Compressor and 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

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