



VB4.5

Lightweight Sound Barrier Sheet

VB4.5 is a lightweight, flexible, multi-layered composite material engineered to provide shock absorption an acoustic barrier and thermal insulation in a single product. VB4.5 is constructed of a thin, decoupling layer of neoprene foam that is bonded to a dense layer of .5lb. ft², mineral loaded vinyl. The decoupling layer creates an airspring that allows for the reflection of high energy, airborne sound. The vinyl barrier is essentially a floating wall, which because of its high mass and relative thinness, is an effective, lightweight barrier material.

In an automotive application, high energy, low frequency road noise that enters the passenger compartment from beneath the vehicle is reflected by the dense layer of mineral loaded vinyl. One layer of VB4.5 is equivalent to four layers of a vibration damping material in regards to airborne sound reduction.

Applications:

- Automotive undercarpet
(i.e. footwells, firewall, cargo / storage area)
- Commercial / residential in wall barrier
- RV generator housings
- Marine engine bays
- Air compressor and machine tool housings

Benefits:

- Excellent noise reduction with minimum added weight
- Ideal for use on flat surfaces
- Impervious to moisture and harsh liquids
- Marine engine bays
- Reduced installation time compared to other noise control techniques
- No special tools required to install

Material Specifications:

- Thickness:** .185"
- Weight:** .5 lbs. ft²
- Dimensions:** 37" x 54"
- Color:** Black
- Flammability (foam):** UL 94 HF1
- Flammability (composite):** UL 94 HBF; DOT MVSS302 (pass)
- Tear Strength (foam):** 1.5 lb./in min.
- Elongation (foam):** 120% min.
- Tensile (foam):** 12 psi. min.
- Thermal Insulation Factor:** R4

Acoustical Properties:

Material	125	250	500	1K	2K	4K	STC
VB4.5	8	13	17	22	27	31	20

Contact Information:

Cascade Audio Engineering
 64894 Old Bend Redmond Hwy
 Bend, Oregon 97701
 Phone / 541-389.6821
 Fax / 541-389-5273
 Email / sales@cascadeaudio.com
 Web / www.cascadeaudio.com

sound barrier