WAVEBAR® dBX ECO

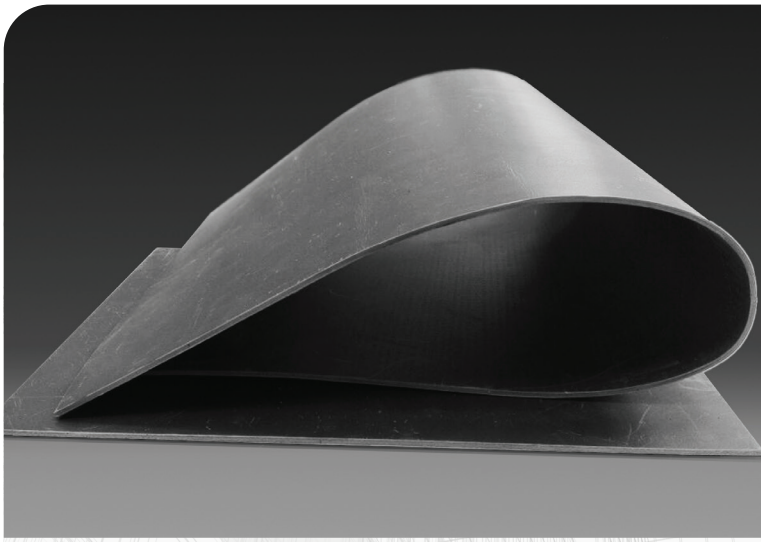
flexible noise barrier

Wavebar® dBX ECO is a high-performance, flexible mass-loaded vinyl noise barrier, made from 100% recyclable materials, offering superior acoustic transmission loss. Designed to meet market requirements, it has been effectively used to reduce noise in building, commercial, industrial and automotive markets, globally.

The engineering team at Pyrotek® developed Wavebar® dBX ECO to be dense, thin, highly-flexible, tear-resistant, strong and yet be environmentally friendly at the same time. These properties give the product high transmission loss throughout the various weight ranges.

Stiff lightweight panel constructions, such as plasterboard, drywall, plywood and hollow core walls, typically have coincidence dip resonance which allows noise to transmit through a construction. The coincidence dip is dependent on the material's stiffness and thickness and occurs at the point where the sound transmitted through the structure matches the natural frequency of the panel. Wavebar® dBX ECO shifts the coincidence dip to frequencies limiting its impact, thereby maintaining the performance of the product.

The dense core mass layer reflects and absorbs the transmission of sound through walls, ceilings and floors, reducing the critical frequencies generated from mechanical equipment, engine noise and electronic audio technologies such as radio and television.



applications

- Inside cavities, over lightweight wall and ceilings.
- Ideal for home theatre rooms, office partitions, meeting rooms
- Between the plenum chamber of a floor slab, the roof and adjoining partition walls
- Isolate sound on doors for privacy
- Position as a curtain to separate and create an acoustic barrier for open floor plans.
- Automotive cabin application to reduce engine and road noise transmitting through to passengers
- Laminate to lightweight structures
- Acoustic treatment for oil & gas pipelines

features

- Made from 100% recyclable materials
- Can be recycled again
- Simple to cut and install through obstructions - providing flexibility around pipes, ducts, cables etc.
- Resistant to most chemicals, solvents and petrol
- Free from lead, odour-producing oils and bitumen
- Resistant to weather and UV light
- Tear resistant with high tensile strength. Ability to be suspended in lengths of up to 5 metres
- Available in various weights, widths , roll lengths and sheet sizes
- Available with various laminates such as foil, metallised film, foams and polyesters

SPECIFICATIONS

Colour	Black
Available	Width: 1000 mm Length (linear m): 1.2 to 5 m Weight (kg/m^2): 5, 10
	Custom sizes available depending on MOQ

PRODUCT SPECIFICATIONS

Barrier weight (kg/m²)	Thickness (mm)	Width (mm)	Length (m)	Weight (kg)	Measurement of Sound Insulation in Buildings and of Building Elements ISO 140-3	Operating temp. range (°C)
5	2.75	1000	5 (Roll)	25	22 dB	-25 to 85 as a continuous temperature
			1.2 or 1.4 (sheet)	6 - 7		
10	5.5	1000	1.2 or 1.4 (sheet)	12 - 14	32 dB	

Tolerances: Length: -0/+50mm; Width: -0/+5mm; Thickness: ± 0.5mm; Barrier Weight: ± 5%

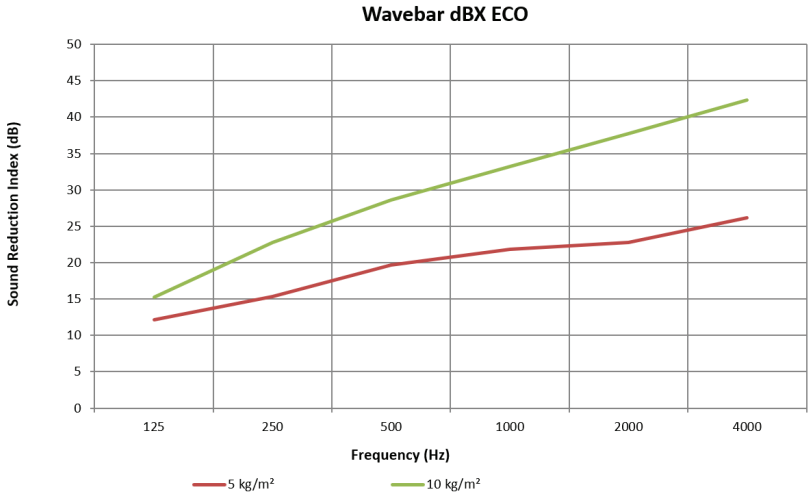
MATERIAL PROPERTIES

Test method	Property	Results
EN 13501 1:2007+A1:2010	Fire reaction	Euroclass Ds1d2
ISO 868	Hardness shore A	85 ± 10
ISO 37	Elongation at break	>100%
ISO 2781	Density	1.83 g/cm³ ± 0.3
EN 12667:2002	Thermal resistance -Rt (m²K/W)	0.006 (5kg)
		0.0013 (10kg)
EN 1931	Water vapour diffusion resistance factor (u)	50361

ACOUSTIC PERFORMANCE

Frequency (Hz)	5 kg/m²	10 kg/m²
125	12.1	15.2
250	15.3	22.8
500	19.7	28.6
1000	21.8	33.2
2000	22.8	37.7
4000	26.2	42.3
Rw	22	32

Tested to UNE-EN ISO 140-3



For further information and contact details, please visit our website pyroteknc.com