

# WAVEBAR® dBX

## dBX flexible noise barrier

Wavebar® dBX is a high performance, flexible, mass-loaded, polymer noise barrier offering superior acoustic transmission loss. dBX represents the latest in alternative noise barrier technology using recycled polymers that are halogen-free. It was developed to meet market noise reduction requirements for the domestic, commercial, industrial and automotive markets.

This high performing product was engineered by Pyrotek to achieve a self-extinguishing, low smoke emission, thin, strong and flexible product. These properties give Wavebar® dBX added strength, high transmission loss and improved fire rating.

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 shifts the coincidence dip to frequencies limiting its impact, thereby maintaining the performance of the product.

The thin, dense mass barrier 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.

### VOC STATEMENT

dBX products contain no ozone-depleting substances and comply with European and Australian standards for Volatile Organic Compound emissions.

### SPECIFICATIONS

Colour	Black
Available	Standard Roll Sizes: 1.45 x 10 m (4.7 ft x 32.8 ft) 1.45 x 5 m (4.7 ft x 16.4 ft)  Custom rolls or sheets available depending on MOQ



## applications

- Inside cavities or over lightweight wall, ceiling and floor constructions. Ideal for theatres, office partitions, meeting rooms and high privacy areas.
- Between the plenum chamber of a floor slab, roof and adjoining partition walls
- Acoustic doors to increase transmission loss
- Automotive cabin application to reduce engine and road noise transmitting through the structure
- Can be laminated onto lightweight structures to dampen and reduce airborne noise
- Usable where moulded parts or components are required

## features

- No ozone-depleting substances generated during manufacture
- Free from lead, odour-producing oils, halogens and bitumen
- Easy to cut, tape and mechanically fasten into position
- Self-extinguishes upon removal of flame, does not drip
- Resistant to water, oil and natural weather conditions
- Tear-resistant with high tensile strength
- Thermo-formable into different shapes
- Available in various weights, widths and roll lengths
- Available with various laminates such as fabrics, foams and polyester fibre

## PRODUCT SPECIFICATIONS

Barrier weight	Thickness (mm)	Standard roll size	Standard roll weight	'K' value (Wm <sup>-1</sup> K <sup>-1</sup> )	Operating temp. range (°C)
2 kg/m <sup>2</sup> (0.4 lb/ft <sup>2</sup> )	1.2 mm (0.047 in)	1.45* x 10 m (4.7 ft x 32.8 ft)	27 kg (60 lb)	0.49 (Report No.09/1182)	-20 to 70 (Continuous) -20 to 90 (Intermittent)
4 kg/m <sup>2</sup> (0.8 lb/ft <sup>2</sup> )	2 mm (0.079 in)	1.45* x 10 m (4.7 ft x 32.8 ft)	54 kg (119 lb)		
8 kg/m <sup>2</sup> (1.6 lb/ft <sup>2</sup> )	4 mm (0.16 in)	1.45* x 5 m (4.7 ft x 16.4 ft)	54 kg (119 lb)		

Tolerances: Length: ±1%, Width: -0/+5 mm (0.2 in), Thickness: ±3 mm (0.12 in), Weight: ±0.5 kg/m<sup>2</sup> (0.1 lb/ft<sup>2</sup>)

Additional barrier weights available depending on MOQ

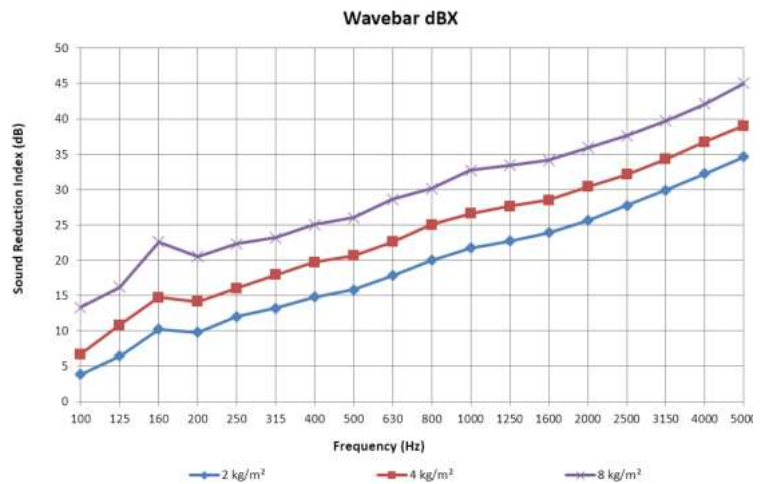
\*Supplied untrimmed - means some surface coverings may overhang the ordered useable width

## MATERIAL PROPERTIES

Test method	Index	Report no.	Description	Result
FMVSS-302	Burn Rate - mm/min	20613JY	Automotive burn rate test. Complies	Self Extinguishing
UL 94	After flame time ≤ 2 seconds	20613JY1	Horizontal burn test for foam materials. Complies	HF2

## ACOUSTIC PERFORMANCE

Frequency (Hz)	2 kg/m <sup>2</sup>	4 kg/m <sup>2</sup>	8 kg/m <sup>2</sup>
100	3.8	6.7	13.3
125	6.4	10.8	16.2
160	10.2	14.7	22.6
200	9.8	14.1	20.5
250	12.0	16.0	22.3
315	13.2	17.9	23.2
400	14.8	19.7	25.0
500	15.8	20.6	26.0
630	17.8	22.6	28.6
800	20.0	25.0	30.1
1000	21.7	26.6	32.7
1250	22.7	27.6	33.4
1600	23.9	28.5	34.1
2000	25.6	30.4	35.9
2500	27.7	32.1	37.6
3150	29.9	34.3	39.7
4000	32.2	36.7	42.1
5000	34.6	39.0	45.0
R <sub>w</sub>	21	25	31
STC	21	26	31



Tested to ISO 15186-1:2003 & 10140-4:2010 at University of Canterbury, New Zealand  
Report Numbers: 261b, 262b & 264b

### Distributed by



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Caveats: Specifications are subject to change without notice. The data in this document is typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the suitability of the product for their project needs. Always seek the opinion of your acoustic or mechanical engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this Information Page refers will not infringe any third party's patents or rights. DISCLAIMER: This document is covered by Pyrotek standard Disclaimer, Warranty and © Copyright clauses. See [pyrotekinc.com/disclaimer](http://pyrotekinc.com/disclaimer).

