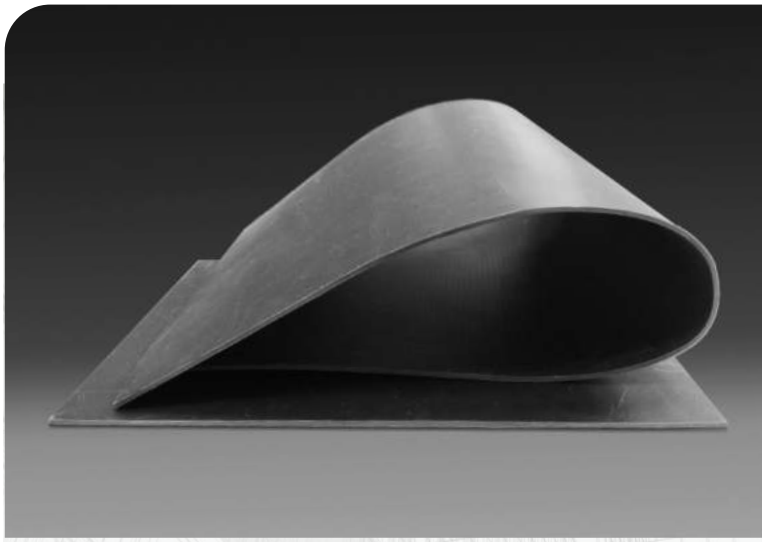
# WAVEBAR® dBX

## 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:<br>1.45 x 10 m (4.7 ft x 32.8 ft)<br>1.45 x 5 m (4.7 ft x 16.4 ft)<br><br>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 ($Wm^{-1}K^{-1}$) | Operating temp. range (°C) |
|---|---|---|---|---|---|
| 2 kg/m2 (0.4 lb/ft2) | 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/m2 (0.8 lb/ft2) | 2 mm (0.079 in) | 1.45* x 10 m (4.7 ft x 32.8 ft) | 54 kg (119 lb) | | |
| 8 kg/m2 (1.6 lb/ft2) | 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/m2 (0.1 lb/ft2 )*

*Additional barrier weights available depending on MOQ*

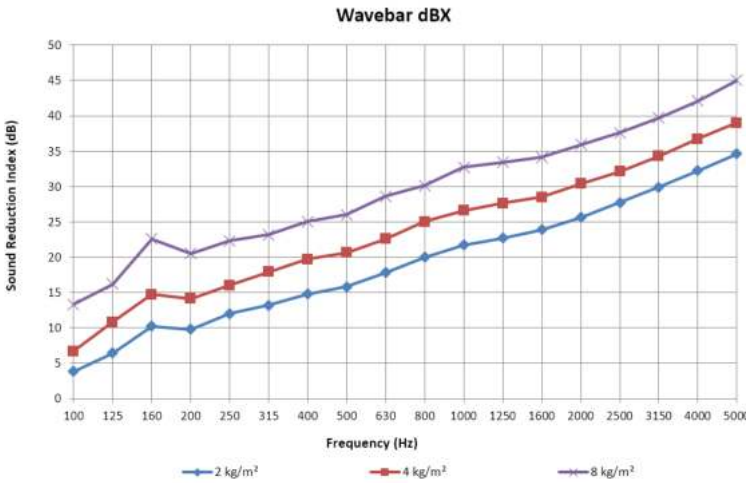
**Supplied untrimmed - means some surface coverings may overhang the ordered useable width*

## 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/m² | 4 kg/m² | 8 kg/m² |
|---|---|---|---|
| 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 |
| $R_w$ | 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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