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 dBX added strength, high transmission loss and fire rating. The facing also makes it easy to bond onto other substrates using matching tape adhesive or equivalent.

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.

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.

'The above products do not contain any Volatile Organic Compounds (VOC's) when evaluated according to definitions as applied under the Australia National Pollutant Inventory, The Council of the European Union, Council Directive 1999/13/EC or the USA EPA regulation 40 CFR 51.100(s).'

SPECIFICATIONS

Colour	Black
Packaging (Standard)	Width: 1350 mm Length (linear m): 5 - 10 m Weight (kg/m^2): 2, 4, 6, 8

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 (without foil facing)
- Available in various weights, widths and roll lengths
- Available with various laminates such as fabrics, foams and polyester fibre

PRODUCT SPECIFICATIONS

Barrier weight (kg/m²)	Thickness (mm)	Roll			'K' value (Wm-1K-1)	Operating temp. range (ºC)
		Width (mm)	Length (linear m)	Weight (kg)		
2	1.2	1350	10	27	49 (Report No. 09/1182)	- 20 to 70 (Continuous) - 20 to 90 (Intermittent)
4	2.0		10	54		
6	3.0		5	41		
8	4.0		5	54		

Tolerances: Length: -0/+50mm; Width: -0/+5mm; Thickness: +/- 0.5mm; Weight: +/- 10%

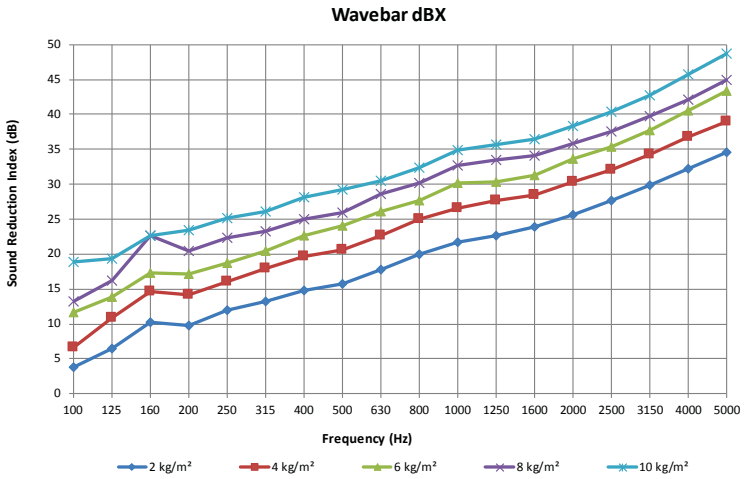
MATERIAL PROPERTIES

Test method	Index	Report no.	Description	Result
AS 1530.3 1999	Ignitability/Spread of Flame/ Heat evolved/Smoke Developed	06162	Method for fire tests on building materials, components and structures.	0/0/0/0
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	6 kg/m²	8 kg/m²	10 kg/m²
100	3.8	6.7	11.6	13.3	18.9
125	6.4	10.8	13.8	16.2	19.3
160	10.2	14.7	17.3	22.6	22.6
200	9.8	14.1	17.2	20.5	23.4
250	12.0	16.0	18.7	22.3	25.2
315	13.2	17.9	20.4	23.2	26.1
400	14.8	19.7	22.7	25.0	28.1
500	15.8	20.6	24.1	26.0	29.3
630	17.8	22.6	26.1	28.6	30.5
800	20.0	25.0	27.7	30.1	32.3
1000	21.7	26.6	30.2	32.7	34.9
1250	22.7	27.6	30.3	33.4	35.7
1600	23.9	28.5	31.2	34.1	36.4
2000	25.6	30.4	33.6	35.9	38.4
2500	27.7	32.1	35.4	37.6	40.4
3150	29.9	34.3	37.7	39.7	42.7
4000	32.2	36.7	40.6	42.1	45.7
5000	34.6	39.0	43.3	45.0	48.7
R_w	21	25	28	31	34
STC	21	26	28	31	34

Tested to ISO 15186-1:2003 & 10140-4:2010 at University of Canterbury, New Zealand
Report Number: 189



ISO 15665 PIPE INSULATION TESTING

Barrier Weight	Test method	System Assembly	Report no.	Results
6 kg/m²	ISO 15665 (Group 2 Pipe Size)	Available on request	A 3041-1E-RA-002	ISO 15665: Class A2 & B2 NORSOK R-004: Class 6 & Class 7
6 kg/m² & 10 kg/m²	ISO 15665 (Group 2 Pipe Size)	Available on request	A 3041-4E-RA-002	ISO 15665: Class B2 & C2 NORSOK R-004: Class 7 & Class 8

Testing was conducted using Wavebar®

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