



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, automotive and marine markets.

Wavebar dBX is available with a reinforced foil facing. This high performing product was engineered by Pyrotek to achieve a self-extinguishing, low smoke emission, thin, strong and highly flexible product. These properties, combined with foil facing, give **dBX** added strength, high transmission loss and fire rating, complying with **IMO 653.16** marine standard, and building code for low spread of flame. The foil facing also makes it easy to bond onto other substrates using matching **Tape ALR** 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.

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

FEATURES

- No ozone-depleting substances generated during manufacture
- Free from lead, odour-producing oils, halogens and bitumen
- Complies with IMO 653.16 (low spread of flame) and AS1530.3 (low smoke emission) for foil faced
- 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

APPLICATIONS

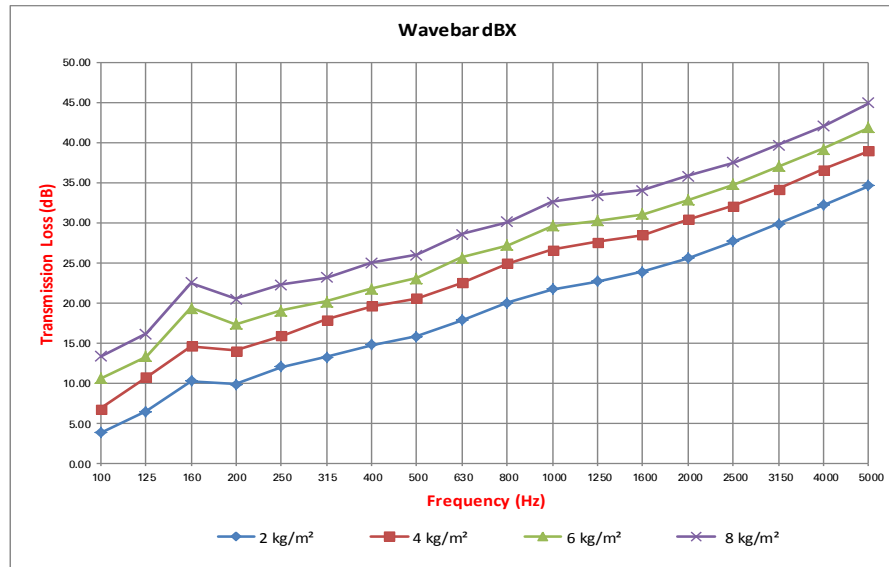
- Marine engine rooms and deckheads to reduce noise transmission
- Rail carriages for under floor insulation to reduce track and braking noise
- Inside cavities or over lightweight wall, ceiling and floor constructions. Ideal for theatres, office partitions, meeting rooms and high privacy areas.
- Between 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

PRODUCT SPECIFICATIONS

BARRIER WEIGHT (Kg/m ²)	THICKNESS (mm)	'K' value	ROLL WIDTH (mm)	ROLL LENGTH (Lineal Metres)	ROLL WEIGHT (Kg)	OPERATING TEMPERATURE RANGE (°C)
2	1.2	0.49 (Report No. 09/1182)	1350	10	27	- 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: +/- 5%

ACOUSTIC PERFORMANCE



Frequency (Hz)	2 kg/m ²	4 kg/m ²	6 kg/m ²	8 kg/m ²
100	3.80	6.80	10.60	13.30
125	6.44	10.76	13.33	16.19
160	10.23	14.66	19.41	22.55
200	9.83	14.05	17.33	20.51
250	12.03	15.95	19.03	22.29
315	13.24	17.93	20.23	23.16
400	14.75	19.66	21.84	25.00
500	15.79	20.61	23.09	25.99
630	17.81	22.55	25.69	28.58
800	19.99	24.99	27.20	30.09
1000	21.70	26.61	29.63	32.66
1250	22.71	27.58	30.29	33.43
1600	23.92	28.50	31.08	34.09
2000	25.62	30.41	32.87	35.86
2500	27.70	32.11	34.80	37.56
3150	29.87	34.26	37.05	39.74
4000	32.19	36.67	39.28	42.06
5000	34.60	39.00	41.90	45.00
Rw	21	25	28	31
STC	21	26	28	31

FLAMMABILITY PROPERTIES

TEST METHOD	INDEX	RESULTS	DESCRIPTION
AS 1530.3 1999 (Test Report No. 06162)	Ignitability Spread of Flame Heat evolved Smoke Developed	0 0 0 0	Method for fire tests on building materials, components and structures.
IMO Res A 653(16) IMO Res MSC 61(67) Annex 1 Part 5 & Annex 2 (Report No. 184688) IMO Res MSC 61(67) Annex 1 Part 2 & Annex 2 (Report No. 185382)	-	Complies for floor coverings	Surface Flammability.
EC Certificate (Certificate No:164.117/1121/WCL MED 0260TE)	-	Complies	EC Certificate of Type Examination - 96/98/EC Module B
FMVSS-302	Burn Rate - mm/min	Self Extinguishing	Automotive burn rate test. Complies

VOC STATEMENT

"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)."

Caveats: Specifications are subject to change without notice. The data in this document are 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 NC 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 www.pyroteknc.com/disclaimer.

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