

QUADZERO™ dBX

dBX flexible noise barrier with aluminium glass-cloth facing

Quadzero™ dBX is a high-performance noise control product that exhibits superior transmission loss performance. It features a flexible, mass-loaded, noise barrier, laminated with an aluminium foil-covered glass-cloth facing, (AGC). It was developed to meet market requirements in marine, rail, domestic, commercial, industrial and automotive industries.

'dBX' is a thin, strong, flexible mass barrier made from recycled polymers that are halogen-free and offered in a range of weights that provide impressive acoustic transmission loss performance. The aluminium glass cloth (AGC) face offers a durable, flame-retardant surface, enhancing its fire and acoustic performance. This high-performing product complies with IMO 653.16 marine standard building code for low spread of flame and exhibits impressive transmission loss and fire performance.

Quadzero™ dBX's flexibility alters the stiffness of a construction, thereby shifting its natural frequency and coincidence dip phenomenon outside the 'critical bandwidth', and thus maintains the transmission loss performance of the system. The dense, mass-barrier attenuates noise from mechanical equipment, engine, and electronic audio technologies such as radio and television, when transmitted through walls, ceilings and floors.

VOC STATEMENT

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

SPECIFICATIONS

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



applications

- Marine engine rooms and deckheads to reduce noise transmission
- Rail carriages for under-floor insulation to reduce track and braking noise
- Automotive cabin application to reduce engine and road noise transmitting through the structure
- Inside cavities or over lightweight wall, ceiling and floor constructions.
- Ideal for theatres, office partitions, meeting rooms and high privacy areas.
- Usable where moulded parts or components are required

features

- Complies with IMO 653.16 (low spread of flame) and EN45545-2 (for rail applications)
- Resistant to water, oil and natural weather conditions
- Free from lead, odour-producing oils, halogens and bitumen
- No ozone-depleting substances generated during manufacture
- Tear-resistant with high tensile strength
- Simple to cut, tape and mechanically fasten into position
- Available with various laminates such as fabrics, foams and polyester fibre



PRODUCT SPECIFICATIONS

Barrier weight (kg/m ²)	Thickness (mm)	'k' value (Wm-1K-1)	Roll			Operating temp. range (°C)
			Width (mm)	Length (linear m)	Weight (kg)	
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	
10	5.0			5	68	

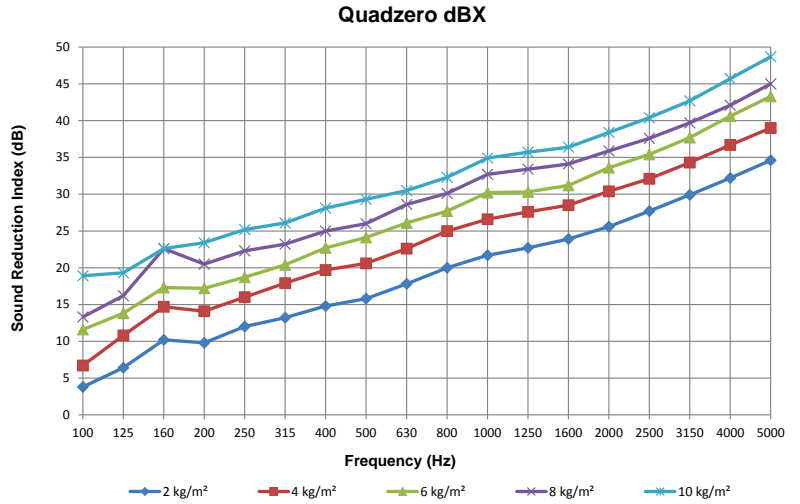
Tolerances: Length: -0/+50mm; Width: -0/+5mm; Thickness: +/- 0.5mm; Weight: +/- 10%

MATERIAL PROPERTIES

Test method	Property	Report no.	Result
IMO FTP Annex 1 Part 5	Surface flammability	377177	Complies for bulkheads, walls or ceiling linings and floors
IMO FTP Annex 2	Smoke and toxicity	377177	
MED B	EC Type Certificate (Module B) for Marine Equipment Directive	164.112/112/EWC MED0439TE	
MED D	EC Type Certificate (Module D) for Marine Equipment Directive	MEDD00000R4	Complies
EN 45545-2 (ISO 5658-2)	Spread of flame	381213	R1 (HL1, HL2, HL3)
EN 45545-2 (ISO 5660-1: 50kWm ⁻²)	Heat release rate by cone calorimeter	381214	
EN45545-2 (ISO 5659-2: 50kWm ⁻²)	Smoke generation (optical density)	381216	
ASTM E162	Surface flammability	102087697MID-001REV2	- Complies for US (FRA) Federal railroad administration requirements and requirements of NFPA 130
ASTM E662	Optical Density of Smoke Generated	102087697MID-002REV2	
ASTM E 800 (SMP-800C)	Gases Present or Generated During Fires	102087697MID-003REV2	- Complies for US (DOT) Department of Transportation requirements for acoustic insulation of transit bus and vans (Docket 90A)

ACOUSTIC PERFORMANCE

Frequency (Hz)	2 kg/m ²	4 kg/m ²	6 kg/m ²	8 kg/m ²	10 kg/m ²
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
Rw	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: 261e, 262e, 263e, 264e & 265e

ISO 15665 PIPE INSULATION TESTING

Barrier Weight	Test method	System Assembly	Report no.	Results
6 kg/m ²	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/m ² & 10 kg/m ²	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

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, mechanical and fire 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 pyroteknc.com/disclaimer.

