QUADZERO™

foil faced flexible noise barrier

Quadzero™ is a high-performance, foil faced, mass-loaded vinyl noise barrier, offering superior acoustic transmission loss and low spread of flame surface covering.

Quadzero™ was developed to meet market noise reduction requirements in the domestic, commercial, industrial and OEM sectors.

To achieve this high-performance, the Pyrotek® engineering team developed Quadzero™ to be dense, thin, strong, tear-resistant and highly flexible. These properties give the product high transmission loss throughout the various weight ranges. It complies with British and international fire and building codes for low spread of flame.

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.

Quadzero™ shifts the coincidence dip to frequencies limiting its impact, thereby maintaining the performance of the product. The thin, dense mass Quadzero™ 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 devices.

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)
Available	Width: 1350 mm Length (linear m): 5 - 10 m Weight (kg/m^2): 2, 4, 6, 8,10
	Custom depending on MOQ

applications

- Inside cavities or over lightweight wall, ceiling and floor constructions. Ideal for home theatres, office partitions, meeting rooms.
- Over roof joists to reduce aircraft, rail and traffic noise.
- Applied between the plenum chamber of a floor slab, roof and adjoining partition walls.
- Installed around the outside of metal air ducts to reduce noise break-out.
- Wrapped around noisy pipes, valves and fan casings e.g. fluid or gas pulsation in chemical, petrochemical, wastewater treatment plants and oil & gas pipelines.
- Automotive firewalls to reduce engine and road noise transmitting through the structure.
- Rail carriages for under floor insulation to reduce track and braking noise.

features

- Complies to AS1530.3 & BS 467.6/7 building codes
- Free from lead, odour-producing oils and bitumen
- Can be fitted around challenging places
- The foil facing also makes it easy to bond onto other substrates using matching Tape ALR adhesive or equivalent.
- Simple to cut, sew, tape and mechanically fasten
- Resistant to water, oil and natural weather conditions
- Tear resistant with high tensile strength. Ability to be suspended in lengths of up to 5 metres
- Available with various laminates such as foams, polyesters and fibreglass

PRODUCT SPECIFICATIONS

Barrier weight (kg/m²)	Thickness (mm)	'k' value W m⁻¹ K⁻¹	Roll			Ceiling Sound Transmission Test AMA-1-II-1967 (CSTC)	Operating temp. range (ºC)
			Width (mm)	Length (linear m)	Weight (kg)		
2	1.2	0.49 (Report No. 09/1182)	1350	10	27	44 (Report No. A-22104-0228)	-40 to 100 (Continuous) -40 to 120 (Intermittent)
4	2.0			5 or 10	27 - 54	48 (Report No. -22107-0228)	
6	3.0			5	41	-	
8	4.0			5	54	50 (Report No. 22114-0228)	
10	4.9			5	68	-	

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

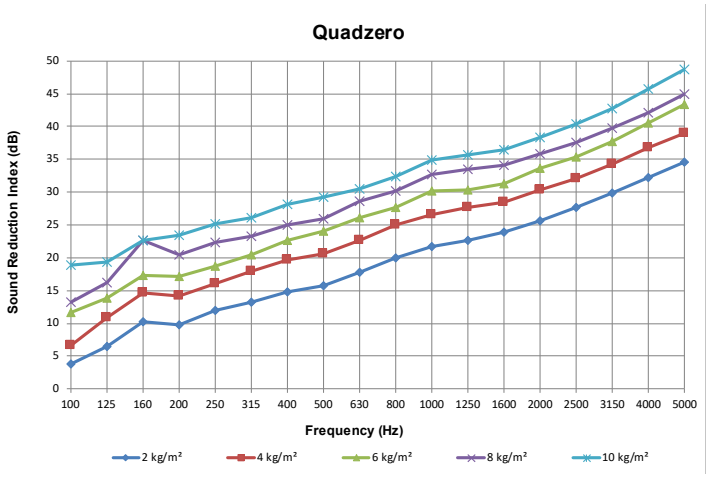
MATERIAL PROPERTIES

Test method	Property	Report no.	Results
AS 1530.3	Ignitability, flame propagation, heat and smoke release	7-530659-CN	0,0,0,0-1
AS 3837 / ISO 5660-1	Fire hazard properties	FT5197-TT	Group 3
BS 6853 Annex B2	Weighted summation of toxic fume	2974/R1	R 0.050
BS 6853 Annex D 8.6	Smoke density	377170	Cat 1b
BS476 part 7	Surface spread of flame	431606	Class 1
FMVSS-302	Flammability of interior materials	02313BD8	Complies to the requirements of US (DOT) Department of transportation for occupant compartments of motor vehicles

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
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: 261c, 262c, 263c, 264c & 265c



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 grayking.com.au

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 pyroteknc.com/disclaimer.