Foil Faced Flexible Noise Barrier

Wavebar® 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.

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

FEATURES

- Low cost and long lasting with over 40 years' industry use
- No ozone depleting substances generated during manufacture
- Complies to AS1530.3 & BS 467.6/7 building codes
- Free from lead, odour-producing oils and bitumen
- Easily installed in awkward places
- The foil facing also makes it easy to bond onto other substrates using matching **Tape ALR** adhesive or equivalent.
- Easy to cut, sew, tape and mechanically fasten into position
- 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 in various weights, widths and roll lengths
- Available with various laminates such as foams, polyesters and fibreglass

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, e.g. fluid or gas pulsation in chemical, petrochemical and waste water treatment plants.
- Wrapped around valves and fan casings.
- Automotive firewalls to reduce engine and road noise transmitting through the structure.
- Rail carriages for under floor insulation to reduce track and braking noise.

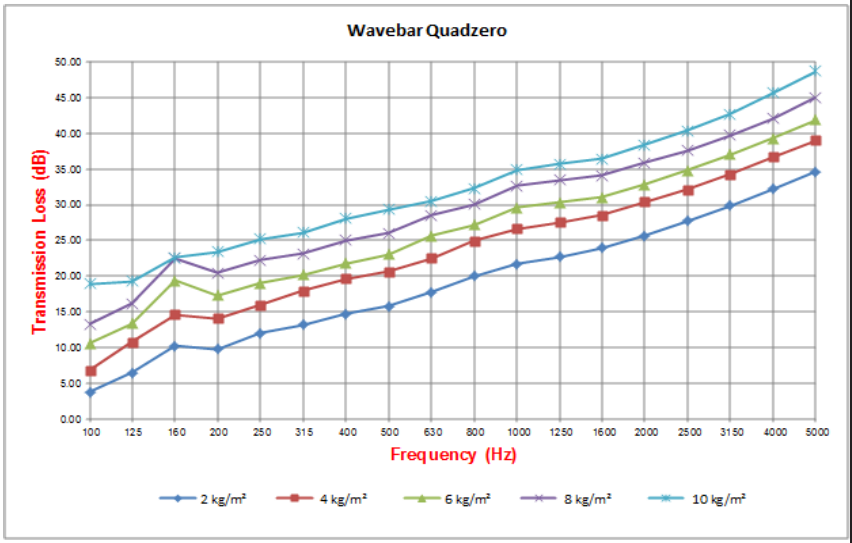
PRODUCT SPECIFICATIONS

BARRIER WEIGHT (Kg/m^2)	THICKNESS (mm)	'K' value ($Wm^{-1}K^{-1}$)	ROLL WIDTH (mm)	ROLL LENGTH (Lineal Metres)	ROLL WEIGHT (Kg)	CEILING SOUND TRANSMISSION TEST AMA-1-II-1967 (CSTC)	OPERATING TEMPERATURE RANGE °C
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. A-22107-0228)	
6	3.0			5	41	-	
8	4.0			5	54	50 (Report No. A-22114-0228)	
10	4.9			5	68	-	

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

ACOUSTIC PERFORMANCE

(Tested at University of Canterbury in accordance with ISO 15186-1 / ISO 10140-4)
(Report No.189 Issue 1)



Test results are based on Wavebar Original.

Frequency (Hz)	2 kg/m²	4 kg/m²	6 kg/m²	8 kg/m²	10 kg/m²
100	3.80	6.80	10.60	13.30	18.90
125	6.44	10.76	13.33	16.19	19.30
160	10.23	14.66	19.41	22.55	22.60
200	9.83	14.05	17.33	20.51	23.40
250	12.03	15.95	19.03	22.29	25.20
315	13.24	17.93	20.23	23.16	26.10
400	14.75	19.66	21.84	25.00	28.10
500	15.79	20.61	23.09	25.99	29.30
630	17.81	22.55	25.69	28.58	30.50
800	19.99	24.99	27.20	30.09	32.30
1000	21.70	26.61	29.63	32.66	34.90
1250	22.71	27.58	30.29	33.43	35.70
1600	23.92	28.50	31.08	34.09	36.40
2000	25.62	30.41	32.87	35.86	38.40
2500	27.70	32.11	34.80	37.56	40.40
3150	29.87	34.26	37.05	39.74	42.70
4000	32.19	36.67	39.28	42.06	45.70
5000	34.60	39.00	41.90	45.00	48.70
Rw	**21**	**25**	**28**	**31**	**34**
STC	**21**	**26**	**28**	**31**	**34**

FLAMMABILITY PROPERTIES

TEST METHOD	INDEX	RESULTS	DESCRIPTION
AS 1530.3 1999 (Test Report No. 7-530659-CN)	Ignitability/Spread of Flame/Heat evolved/Smoke Developed	0,0,0,0-1	Method for fire tests on building materials, components and structures.
BS 6853 Annex B2 (Report No. 2974/R1)	"R" value	R 0.050	Fume measurement test.
BS 6853 Annex D 8.6 (Doc No 195349 Issue: 2)	Ao(max)	Cat 1b	Smoke density test.
BS476 part 7 (Report No. 184498 Issue: 2)	Class1, Class2, Class3	Class 1	Classification of the surface spread of flame.
DIN 5510-2 (Report No. AJD201206359)	S1 to S5/not awarded, SR1, SR2/ ST1 or ST2	S3/SR2/ST2	Flammability Class Smoke/Development Class/ Dripping Class
DIN 5510-2 Annex C (Report No. AJD201206704)	FED	Pass	Toxicity (FED) requirement of FED≤1
FMVSS-302 (Report No. 02313BD8)	Burn Rate - mm/min	SE	Automotive burn rate test