



## Flexible Noise Barrier



**Wavebar®** is a high-performance, flexible mass-loaded vinyl noise barrier, offering superior acoustic transmission loss.

**Wavebar** was developed to meet market requirements for reducing noise in the domestic, commercial, industrial and automotive markets.

To achieve this high performance, the Pyrotek engineering team developed **Wavebar** to be dense, thin, highly-flexible, tear-resistant and strong. These properties give the product high transmission loss throughout the various weight ranges.

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.

**Wavebar** shifts the coincidence dip to frequencies limiting its impact, thereby maintaining the performance of the product. The dense core mass layer 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.

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

### FEATURES

- Low cost, long lasting with over 40 years' industry use
- No ozone depleting substances generated during manufacture
- Free from lead, odour-producing oils and bitumen
- Easily installed in awkward places
- Easy to cut, sew and mechanically fasten into position
- Resistant to most chemicals, solvents and petrol
- Resistant to weather and UV light
- Tear resistant with high tensile strength. Ability to be suspended in lengths of up to 5 metres
- Available in various weights, widths, roll lengths and sheet sizes
- Available with various laminates such as foil, metallised film, foams and polyesters

### APPLICATIONS

- Inside cavities or over lightweight wall, ceiling and floor constructions. Ideal for home theatre rooms, office partitions, meeting rooms
- Between the plenum chamber of a floor slab, the roof and adjoining partition walls
- Acoustics doors to improve performance
- Portable acoustic curtains and screens
- Easily draped over fencing to create an acoustic barrier
- Automotive cabin application to reduce engine and road noise transmitting through a structure
- Can be laminated onto lightweight structures to damp vibration and reduce airborne noise

## PRODUCT SPECIFICATIONS

BARRIER WEIGHT (kg/m <sup>2</sup> )	THICKNESS (mm)	ROLL WIDTH (mm)	ROLL LENGTH (Lineal Metres)	ROLL WEIGHT (Kg)	CEILING SOUND TRANSMISSION TEST - AMA-1-II-1967 (STC)	OPERATING TEMPERATURE RANGE (°C)
2	1.2	1380 *	10	28	44 (Report No. A-22104-0228)	-40 to 100 (Continuous)  -40 to 120 (Intermittent)
4	2.0		5 or 10	28 - 56	48 (Report No. -22107-0228)	
6	3.0		5	42	-	
8	4.0		5	56	50 (Report No. 22114-0228)	
10	4.9		5	70	-	

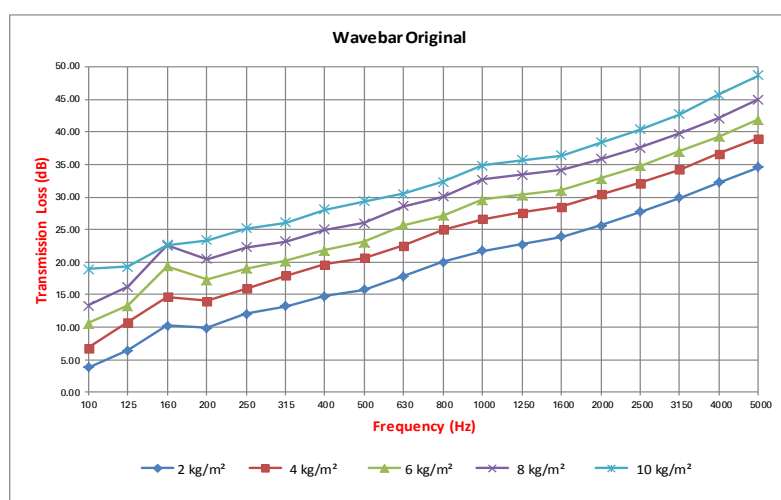
Tolerances: Length: -0/+50mm; Width: -0/+5mm; Thickness: +/- 0.5mm; Weight: +/- 5%

\*Supplied untrimmed - means some surface coverings such as foils, film or fabric may overhang the ordered useable width

## ACOUSTIC PERFORMANCE

(Tested at University of Canterbury in accordance with ISO 15186-1/ ISO 10140-4)

(Report No.189 Issue 1)



Frequency (Hz)	2 kg/m <sup>2</sup>	4 kg/m <sup>2</sup>	6 kg/m <sup>2</sup>	8 kg/m <sup>2</sup>	10* kg/m <sup>2</sup>
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
<b>Rw</b>	<b>21</b>	<b>25</b>	<b>28</b>	<b>31</b>	<b>34</b>
<b>STC</b>	<b>21</b>	<b>26</b>	<b>28</b>	<b>31</b>	<b>34</b>

\*Results for Wavebar Quadzero

## FLAMMABILITY PROPERTIES

TEST METHOD	INDEX	RESULTS	DESCRIPTION
FMVSS-302 (Report No. 00813BD)	Burn Rate - mm/min	Self Extinguishing	Automotive burn rate.
UL94 (Report No. 17592PC)	After flame time ≤ 2 seconds	HBF	Horizontal burn test for foam materials. 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](http://www.pyroteknc.com/disclaimer).

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**Pyrotek**  
noise control