

WAVEBAR®

flexible noise barrier

Wavebar® is a high-performance, flexible mass-loaded vinyl noise barrier, offering superior acoustic transmission loss. Designed to meet market requirements, it has been effectively used to reduce noise in building, commercial, industrial and automotive markets, globally.

The engineering team at Pyrotek® 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.

VOC STATEMENT

Wavebar® does not contain any Volatile Organic Compounds (VOC) 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).

SPECIFICATIONS

| | |
|-----------|---|
| Colour | Black |
| Available | Width: 1380 mm Length (linear m): 5 to 10 m Weight (kg/m ²): 2, 4, 6, 8, 10 |
| | Custom sizes available depending on MOQ |



applications

- Inside cavities, over lightweight wall and ceilings.
- Ideal for home theatre rooms, office partitions, meeting rooms
- Between the plenum chamber of a floor slab, the roof and adjoining partition walls
- Isolate sound on doors for privacy
- Position as a curtain to separate and create an acoustic barrier for open floor plans.
- Automotive cabin application to reduce engine and road noise transmitting through to passengers
- Laminate to lightweight structures
- Acoustic treatment for oil & gas pipelines

features

- Simple to cut and install through obstructions - providing flexibility around pipes, ducts, cables etc.
- Resistant to most chemicals, solvents and petrol
- Free from lead, odour-producing oils and bitumen
- 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



PRODUCT SPECIFICATIONS

| Barrier weight (kg/m ²) | Thickness (mm) | Roll | | | Ceiling sound transmission test AMA-1-II-1967 (CSTC) | Operating temp. range (°C) |
|-------------------------------------|----------------|------------|-------------------|-------------|---|--|
| | | Width (mm) | Length (linear m) | Weight (kg) | | |
| 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; Barrier Weight: <4.5 kg/m² ±0.2 kg/m²; 4.5-10 kg/m² ±0.4 kg/m²; ≥10 kg/m² ±0.5 kg/m²

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

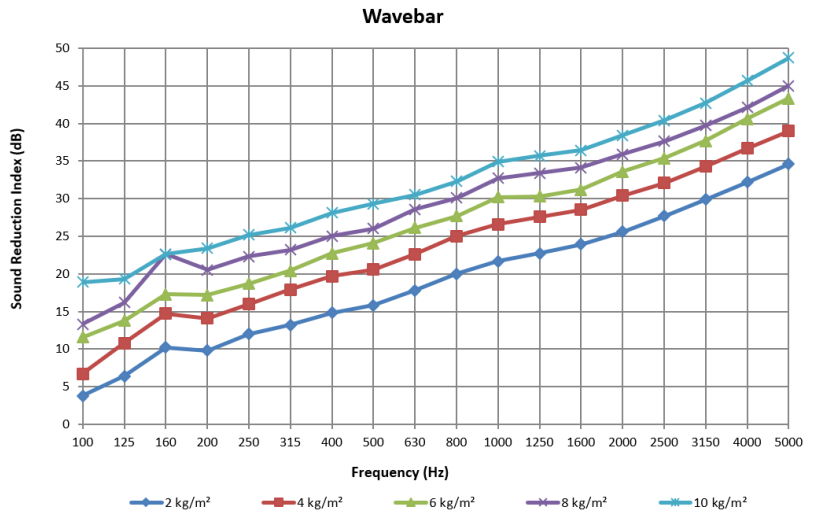
MATERIAL PROPERTIES

| Test method | Property | Report no. | Results |
|-------------------------------------|------------------------------------|-------------|---|
| AS 5637.1 (AS 3837 / ISO 5660-1) | Fire hazard properties | FH13406-001 | Group 3 |
| FMVSS-302 | Flammability of interior materials | 00813BD | Complies to the requirements of US (DOT) Department of transportation for occupant compartments of motor vehicles |
| UL94 | Flammability of plastic materials | 33112BD | HBF |

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 Numbers: 261a, 262a, 263a, 264a & 265a



ISO 15665 PIPE INSULATION TESTING

| Product | Test method | System Assembly | Report no. | Results |
|--|-------------------------------|----------------------|------------------|---|
| Wavebar 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 |
| Wavebar 6 kg/m ² & Wavebar 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 |

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.

