

WAVEBAR® MIL

MIL-SPEC flexible, fire-resistant noise barrier

Wavebar® MIL is a high-performance, flexible mass-loaded vinyl noise barrier combined with fibreglass fabric. It was designed for the military and navy industry, conforming to MIL-PRF-24699A (SH).

Pyrotek developed a dense, thin, highly-flexible and tear-resistant noise barrier with excellent fire-resistance and thermal insulation. Wavebar MIL, designed with the original Wavebar soundproofing properties and added 'flame shield', is approved for use in military vehicles and navy ships.

Stiff and lightweight panel constructions such as light-gauge metals or rigid boards 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® MIL shifts the coincidence dip to frequencies limiting its impact, thereby maintaining the performance of the product.

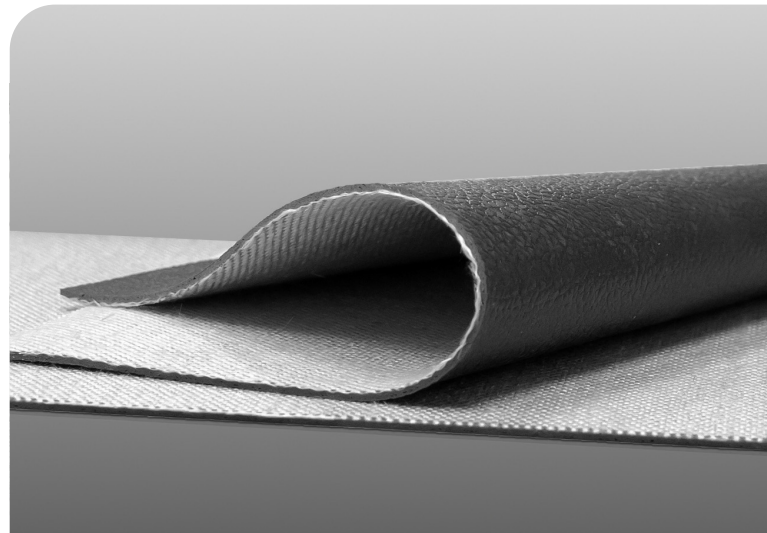
The dense mass layer reflects and absorbs the transmission of sound, reducing the critical frequencies generated from mechanical equipment, engine noise and electronic audio technologies.

VOC, ODP, HEALTH AND SAFETY

Wavebar MIL is non-toxic and safe to handle by methods prescribed in Safety datasheet. No Volatile Organic Compounds (VOC) are intentionally added to Wavebar MIL during its manufacture 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). No Ozone depleting substances are used during the manufacture of Wavebar MIL.

SPECIFICATIONS

Colour	Black
Available	Standard roll length: up to 30 ft (9.1 m) Standard roll width: up to 5 ft (1.52 m)
	Barrier weights: 0.75 lb/ft ² (3.7 kg/m ²), 1 lb/ft ² (4.9 kg/m ²), 1.5 lb/ft ² (7.3 kg/m ²)
	or custom depending on MOQ



applications

- Military vehicles
- Machinery spaces, cavities and enclosures
- Marine and navy bulkheads and deckheads
- Isolate sound on doors for privacy
- Position as a curtain to separate and create an acoustic barrier
- Pipes and ducts

features

- Conforms to MIL-PRF-24699A (SH) - approved for use in military vehicles and navy ships
- Excellent soundproofing and fire-resistance properties
- 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 16.4 ft (5 m)
- Available in various weights, widths, roll lengths and sheet sizes
- Available with various laminates such as foil, metallised film, foams and polyesters



PRODUCT SPECIFICATIONS

Wavebar® MIL class	Total weight	Thickness	Standard roll width	Standard roll length	Operating temperature range
Class 1	0.75 lb/ft ² (3.7 kg/m ²)	0.05 in (1.2 mm)	38 in to 60 in (1 m to 1.52 m)	30 ft (9.1 m)	Continuous: -40 to 212 °F (-40 to 100 °C) Intermittent: -40 to 248 °F (-40 to 120 °C)
Class 2	1 lb/ft ² (4.9 kg/m ²)	0.10 in (2.5 mm)		30 ft (9.1 m)	
Class 3	1.5 lb/ft ² (7.3 kg/m ²)	0.16 in (4 mm)		20 ft (6.1 m)	

Tolerances: Dimensions: Width: ±0.25 in (6.4 mm), Weight: ±10%

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

MATERIAL PROPERTIES

Test method	Property	Report	Results Compliance to MIL-PRF-24699A (SH)
ASTM E162	Surface flammability	103455343MID-001REV2	Flame spread index <30 Complies
ASTM E662	Optical density of smoke generated	Class 1: 103514321MID-001A	Class 1: <300 Complies
		Class 2: 103475410MID-001A	Class 2: <350 Complies
		Class 3: 103514321MID-001B	Class 3: <450 Complies
ASTM D5035	Breaking force	15382-TB	Warp: >400 lb/in Complies
			Weft: >300 lb/in Complies
ASTM D2261	Tearing strength	15383-AE	Warp: >50 lb Complies
			Weft: >40 lb Complies
ASTM D638	Rivet and grommet load bearing strength	18618JY	>180 lb of pull Complies
FED-STD-191A Method 5206	Flexural rigidity	20018AR	45 °F: <1 in.lb Complies
			133 °F: <0.3 in.lb Complies
ASTM D2724	Peel strength	PYROTE.A040918A	Warp: >4 lb/in Complies
			Weft: >2 lb/in Complies
HHA (Health Hazard Assessment)/Toxicity		6261 Ser IH-0437	No adverse effect on the health of personnel when used for its intended purpose. Complies
Submarine Materials Review		6261 Ser 18UM9-0426	"LIMITED" usage category Complies

ACOUSTIC PERFORMANCE

Frequency (Hz)	Class 1 (dB)	Class 2 (dB)	Class 3 (dB)
100	7	11	13
125	11	13	16
160	15	19	23
200	14	17	21
250	16	19	22
315	18	20	23
400	20	22	25
500	21	23	26
630	23	26	29
800	25	27	30
1000	27	30	33
1250	28	30	33
1600	29	31	34
2000	30	33	36
2500	32	35	38
3150	34	37	40
4000	37	39	42
5000	39	42	45
STC	26	28	31
Rw	25	28	31

Tested to ISO 15186-1:2003 & 10140-4:2010 at University of Canterbury, New Zealand
Report Number: 262f, 189(rev1)h & 264f

