WAVEBAR® SIL

MIL-SPEC high temperature noise barrier

Wavebar® SIL is a high-performance, flexible, mass-loaded silicone noise barrier combined with fibreglass fabric. With fiberglass fabric on both sides of the acoustic barrier, it was double faced for maximum protection and designed for the military and navy industry, conforming to MIL-PRF-24699B(SH) Type II.

Pyrotek developed the high temperature and tear-resistant noise barrier with excellent fire resistance and thermal insulation to withstand high temperatures (482F, 250C). Wavebar SIL, designed with the original Wavebar soundproofing properties and added 'flame shield', is designed for 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® SIL shifts the coincidence dip to frequencies limiting its impact, thereby maintaining the performance of the product.

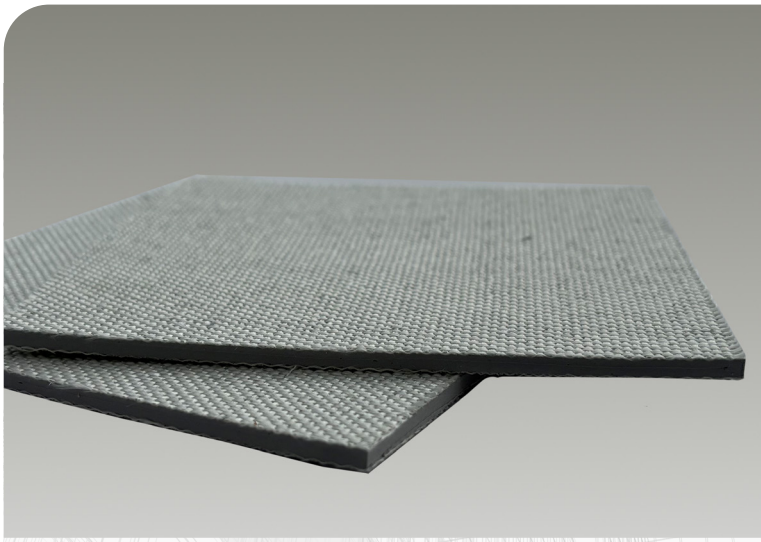
The dense mass layer reflects and absorbs the transmission of sound, reducing the critical frequencies generated from mechanical equipment, engine noise and electronic audio technologies.

VOC, ODP, HEALTH AND SAFETY

Wavebar SIL is non-toxic and safe to handle by methods prescribed in Safety datasheet. No Volatile Organic Compounds (VOC) are intentionally added to Wavebar SIL 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 SIL.

SPECIFICATIONS

Colour	Grey
Available	Standard roll length: up to 25 ft (7.6 m) Standard roll width: up to 48 in (1.22 m) 26 in, 38 in or custom width available with MOQ
	Barrier weight: 1 lb/ft² (4.9 kg/m²) - 1.5 lb/ft² (7.3 kg/m²)
	Available as double-faced fibreglass MOQ for single-faced fibreglass



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-24699B (SH) Type II - 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)

PRODUCT SPECIFICATIONS

Wavebar® SIL class	Total weight	Thickness	Standard roll width	Standard roll length	Operating temperature range
Type II Class 2	1 lb/ft^2 (4.9 kg/m^2)	0.10 in (2.5 mm)	48 in (1.22 m)	25 ft (7.6 m)	Continuous: - 55 to 482 °F (-48 C to 250 °C)
Type II Class 3	1.5 lb/ft^2 (7.3 kg/m^2)	0.16 in (4 mm)			

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

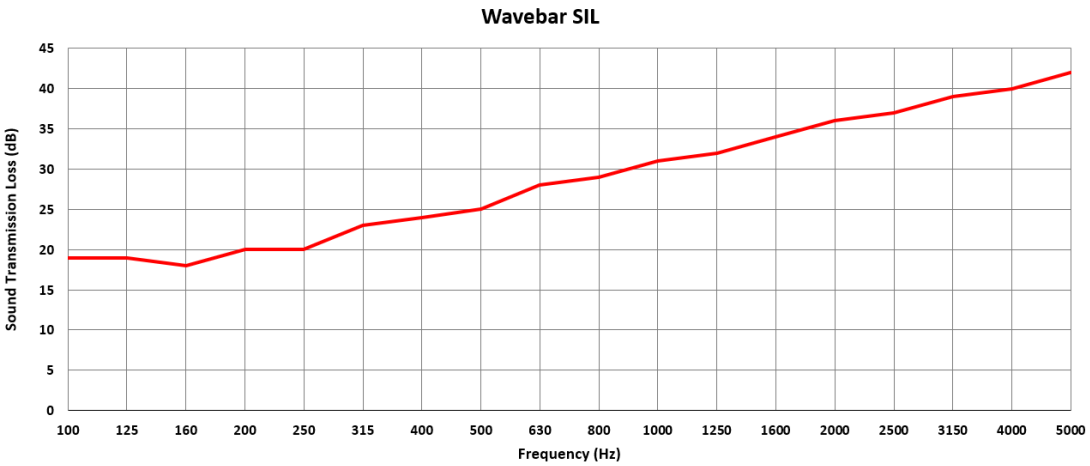
Test method	Property	Report	Results Compliance to MIL-PRF-24699B (SH)
ASTM E162	Surface flammability	105930220MID-001REV1	Radient Panel (Flame Spread) Index ≤ 5
ASTM E662	Optical density of smoke generated	105930220MID-002REV1	Ds (4) ≤ 25
ASTM E8009 (Bombardier SMP 800C)	Toxic gas generation	105930220MID-003REV1	Complies
ASTM D5035	Breaking force	17169-MB	Warp: 940 lb/in
			Weft: 740 lb/in
ASTM D2261	Tearing strength	17170-MB	Warp: 76lb
			Weft: >72lb, untearable
ASTM D638	Rivet and grommet load bearing strength	23424CD	>180 lb of pull
ASTM D2724	Peel strength	PYROTE.A082724A	Warp: >4 lb/in
		PYROTE.A0091024A	Weft: >2 lb/in
Submarine Materials Review		6260 Ser N10/25UN100150	"LIMITED" usage category Complies

Results for Type II Class 3

ACOUSTIC PERFORMANCE

Frequency (Hz)	Wavebar SIL Type II Class 3 (dB)
100	19
125	19
160	18
200	20
250	20
315	23
400	24
500	25
630	28
800	29
1000	31
1250	32
1600	34
2000	36
2500	37
3150	39
4000	40
5000	42
STC	30
Rw	30

Tested to ASTM E90-9 at Riverbank Acoustical Laboratories
Report Number: TL24-484



For further information and contact details, please visit our website
pyroteknc.com