

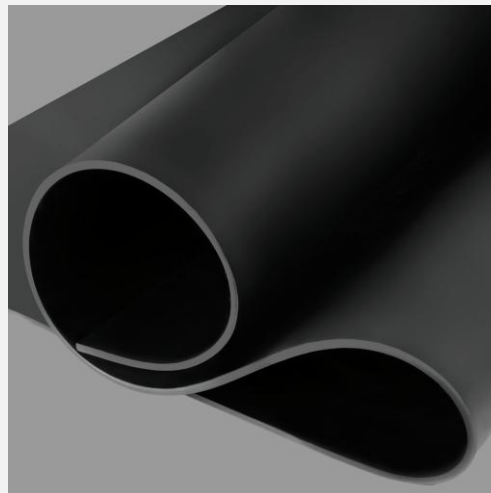
Isobrane® is a high performance, flexible, mass-loaded, polymer noise barrier offering superior acoustic transmission loss. It represents the latest alternative noise barrier technology, using halogen-free recycled polymers.. It was developed to meet market noise reduction requirements for the domestic, commercial, industrial and automotive markets. This high performing product was engineered by Nankarrow to achieve a self-extinguishing, low smoke emission, thin, strong and flexible product. These properties give Isobrane® added strength, high transmission loss and improved fire rating.

Stiff lightweight panel constructions, such as plasterboard, drywall, plywood, AAC 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. Isobrane® shifts the coincidence dip to frequencies limiting its impact, thereby maintaining the performance of the product.

The thin, dense mass 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 technologies such as radio and television.

Applications

- Inside cavities or over lightweight wall, ceiling, and floor constructions
- Theatres, office partitions, meeting rooms, and high-privacy areas
- Plenum chambers between floor slabs, roofs, and adjoining partition walls
- Acoustic doors requiring increased transmission loss
- Automotive cabin applications to reduce engine and road noise transmission
- Molded parts or components where flexible acoustic barriers are required



Features

- No ozone-depleting substances are generated during the manufacturing process
- Free from lead, odor-producing oils, halogens, and bitumen
- Mineral-loaded formulation
- Corona-treated surface with high surface energy for improved bonding, lamination, and composite assembly
- Self-extinguishing with no flaming drips
- Resistant to water, oil, and natural weather conditions
- Tear-resistant with good tensile strength
- Thermoformable into different shapes
- Available in various weights, widths, and roll lengths
- Available with various laminates such as fabrics, foams, and polyester fiber



Product Specifications

Thickness	Barrier Weight	Standard Sheet Size	Standard Sheet Weight	K Value	Operating Temperature Range
1 mm	2 kg/m ²	1 m x 2 m	4 kg	0.49 W/m·K	-10°C to 70°C Continuous -20°C to 80°C Intermittent
2 mm	4 kg/m ²	1 m x 2 m	8 kg	0.49 W/m·K	-10°C to 70°C Continuous -20°C to 80°C Intermittent
3 mm	6 kg/m ²	1 m x 2 m	12 kg	0.49 W/m·K	-10°C to 70°C Continuous -20°C to 80°C Intermittent
4 mm	8 kg/m ²	1 m x 2 m	16 kg	0.49 W/m·K	-10°C to 70°C Continuous -20°C to 80°C Intermittent
5 mm	10 kg/m ²	1 m x 2 m	20 kg	0.49 W/m·K	-10°C to 70°C Continuous -20°C to 80°C Intermittent

Fire Properties

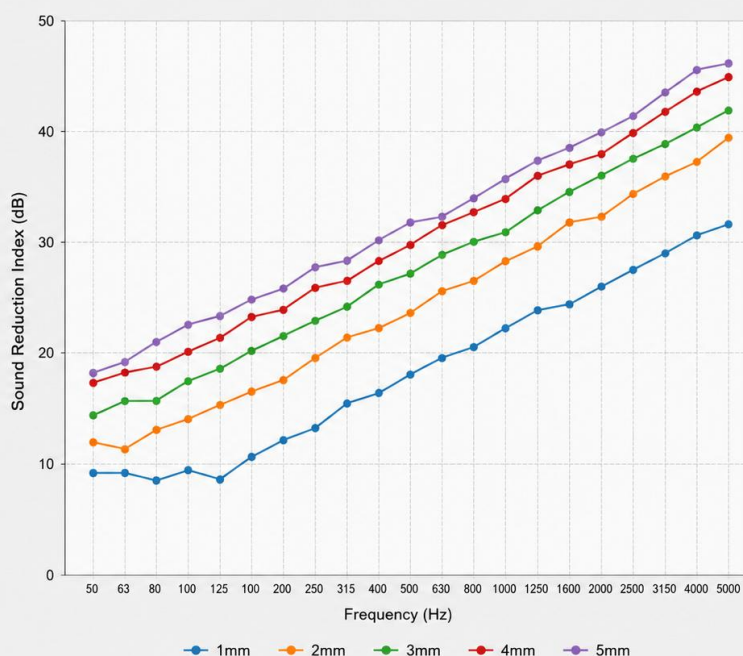
Test Method	Index	Report No.	Description	Result
FMVSS-302	Burn Rate - mm/min	20613JY	Automotive burn rate test. Complies	Self Extinguishing
UL 94	After flame time ≤ 3 seconds	20613JY1	Horizontal burn test for foam materials. Complies	HF2
Operating Temperature Range	-10°C to 70°C Continuous; -20°C to 80°C Intermittent			

Manufacturing Tolerance

Parameter	Specification
Length Tolerance	±1%
Width Tolerance	0 / +5 mm
Thickness Tolerance	±0.3 mm
Weight Tolerance	±0.5 kg/m ²
Additional Barrier Weights	Available depending on MOQ
Supply Note	Supplied untrimmed; some surface coverings may overhang the ordered usable width

Acoustic Performance

Frequency (Hz)	1mm	2mm	3mm	4mm	5mm
50	6.7	8.6	10.4	12.6	13.4
63	6.7	8.1	11.5	13.7	14.1
80	6.1	9.6	11.5	14.2	15.7
100	6.8	10.4	13.3	15.4	17.4
125	6.1	11.4	14.3	16.6	18.3
160	7.5	12.4	15.9	18.9	20.1
200	8.9	13.4	17.6	19.5	21.2
250	9.9	15.3	18.7	21.9	23.5
315	11.8	17.8	20.1	22.4	24.4
400	12.2	18.6	22.7	24.5	26.3
500	14.5	20.1	23.6	26.4	28.5
630	16.1	22.6	25.8	28.6	29.1
800	17.2	23.5	27.3	29.8	31.2
1000	19.5	25.7	28.2	31.5	33.5
1250	21.8	27.2	30.5	33.9	35.3
1600	22.5	29.9	32.5	35.2	36.8
2000	24.7	30.2	34.8	36.1	38.6
2500	26.9	32.8	36.4	38.3	40.3
3150	28.5	34.8	37.8	40.4	42.5
4000	30.3	36.2	39.6	42.5	44.6
5000	31.2	38.8	41.3	44.5	45.1
Rw	21	24	26	30	32
STC	21	24	26	30	32



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