Flexshield Sonic Barrier

Flexible Noise Barrier

Flexshield Sonic Barrier is a high-performance, flexible mass-loaded vinyl noise barrier, offering superior acoustic transmission loss.

Flexshield Sonic Barrier was developed to meet market requirements for reducing noise in the domestic, commercial, industrial and automotive markets.
To achieve this high performance, the Flexshield team developed **Flexshield Sonic Barrier** 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.

Flexshield Sonic Barrier 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.

Flexshield Sonic Barrier 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

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FLEXSHIELD PTY LTD ACN 133 766 640 ABN 65 533 815 254

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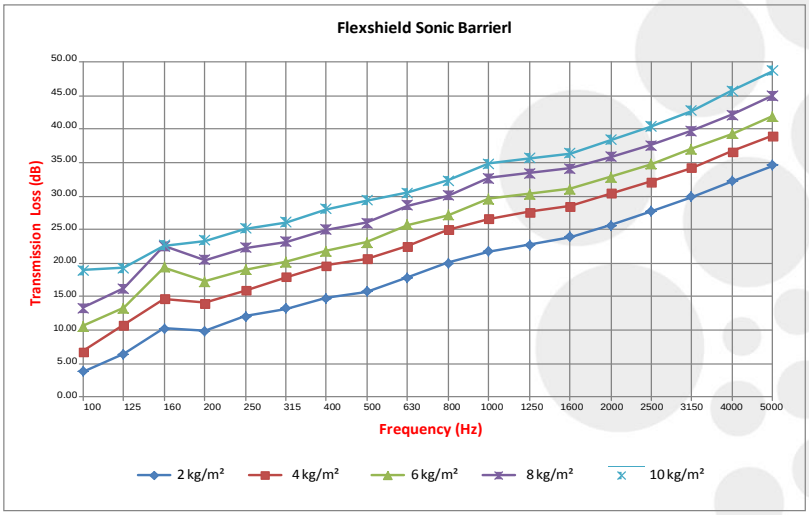
PRODUCTSPECIFICATIONS

BARRIER WEIGHT (kg/m²)	THICKNESS (mm)	ROLL WIDTH (mm)	ROLL LENGTH (Lineal Metres)	ROLL WEIGHT (Kg)	CEILING SOUND TRANSMISSION TEST AMA-1-II-1967 (CSTC)	OPERATING TEMPERATURE RANGE (°C)
2	1.2	1380 *	10	28	44 (Report No. A-22104-0228)	-40 to 100 (Continuous)
4	2.0		5 or 10	28 - 56	48 (Report No. -22107-0228)	
6	3.0		5	42	-	-40 to 120 (Intermittent)
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/m²	4 kg/m²	6 kg/m²	8 kg/m²	10* kg/m
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
Rw	**21**	**25**	**28**	**31**	**34**
STC	**21**	**26**	**28**	**31**	**34**

*Results for Flexshield Sonic Barrier

FLAMMABILITYPROPERTIES

TEST METHOD	INDEX	RESULTS	DESCRIPTION
AS/NZS 3837:1998 (Report No. PR2/5/6/7)	Group Certification	Group 3	Test for heat & smoke release rates for materials & products using an oxygen consumption calorimeter.
FMVSS-302 (Report No. 00813BD)	Burn Rate - mm/min	Self Extinguishing	Automotive burn rate.
UL94 (Report No. 17592PC)	Self Extinguishing and/or Low burn rate	HBF	Horizontal burn test for foam materials. Complies

VOCSTATEMENT

"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)."

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