

SORBERBARRIER

high-performance sound absorber-noise barrier composite

Sorberbarrier is a unique acoustic composite product combining the superior soundproofing performance of the flexible mass loaded vinyl, Wavebar, with Pyrotek's Sorberfoam. The product is designed to reduce unwanted sound in applications such as HVAC systems, equipment enclosures, recreational crafts, smaller marine vessels and the transport industry.

Sorberbarrier's high-performance is achieved by placing the mass barrier between two layers of absorbing foam. It keeps the noise barrier separate from the structure it is bonded to, allowing for flexibility to reflect and absorb the transmission of sound.

Tests have revealed that increasing the thickness of the foam separating the barrier improves the product's performance in some frequencies without affecting the overall weight. The combination of these properties allows Sorberbarrier to target a broad range of frequencies, making it one of the most versatile acoustic solutions in the market place.

Sorberbarrier is available in a variety of surface facing options to meet specified design requirements. Pyrotek offers aluminium glass cloth (Sorberbarrier AGC), metallised polyester (Sorberbarrier M), polyurethane film (Sorberbarrier PU), and perforated vinyl (Sorberbarrier V).

VOC, ODP, HEALTH AND SAFETY

Sorberbarrier is non-toxic and safe to handle by methods prescribed in the Safety Data Sheet. No ozone depleting substances are used during the manufacture of Sorberbarrier.

SPECIFICATIONS

Colour	Dark grey/black
Available	Sheet size: 1.3 x 1 m Available in 20, 25, 32, 50 and 75 mm thickness
	Custom sizes, colours and/or thicknesses available depending on MOQ



applications

- Engine rooms in boats under CE Marine Survey
- Acoustic and thermal insulation for air conditioning ductwork
- Acoustic insulation for plenum areas
- Power generation units
- Machinery and equipment enclosures
- Car, boat, truck and bus engine compartment, firewall and bonnets

features

- Multifunction product: an absorber and barrier in one
- No ozone-depleting substances generated during manufacture
- Free from formaldehyde, phenolic resins and irritating fibres
- Engineered to resist degradation (foam rot) more than traditional acoustic foam
- Low spread of flame surface
- Quick and easily installed in awkward places
- Easy to cut, adhere or mechanically fasten into position
- Matching self-adhesive tape or sprayable coating for sealing joints and edges of the foam
- Can be constructed with other absorption products such as Sorbermel (See Sorberbarrier ML range technical data sheets)



PRODUCT SPECIFICATION

Product	Total thickness	Construction Absorptive layer (mm)/Mass barrier (kg)/ decoupler (mm)	Sheet size ¹	Operating temperature range
Sorberbarrier 20/4.5	20 mm	12/4.5/06	1.3 x 1.0 m and 1.3 x 2.2 m	-40 to 100 °C (Continuous) -40 to 120 °C (Intermittent)
Sorberbarrier 25/4.5	25 mm	12/4.5/12	1.3 x 1.0 m and 1.3 x 2.2 m	
Sorberbarrier 32/4.5	32 mm	25/4.5/06	1.3 x 1.0 m and 1.3 x 2.2 m	
Sorberbarrier 32/8.0	32 mm	25/8.0/06	1.3 m x 1.0 m	
Sorberbarrier 50/4.5	50 mm	25/4.5/25	1.3 x 1.0 m and 1.3 x 2.2 m	
Sorberbarrier 50/8.0	50 mm	25/8.0/25	1.3 x 1.0 m	
Sorberbarrier 75/4.5	75 mm	50/4.5/25	1.3 x 1.0 m	
Sorberbarrier 75/8.0	75 mm	50/8.0/25	1.3 x 1.0 m	

Tolerances: Length: ±1%, Width: -0/+5 mm, Thickness: ±3 mm, Weight: ±10%

¹Useable width is specified. Some surface coverings such as foils, films or fabric may overhang the useable width. Please consult your sales representative as minimum order quantities may apply.

All above products are available with pressure-sensitive adhesive backing. Under extreme temperature and humidity conditions, air flow or where the substrate surfaces cannot be free from contaminants, mechanical fixing will be required. For all inverted installations including ceiling installations, mechanical fixing must be done in addition to pressure sensitive adhesive. Please consult your local Pyrotek representative for more information.

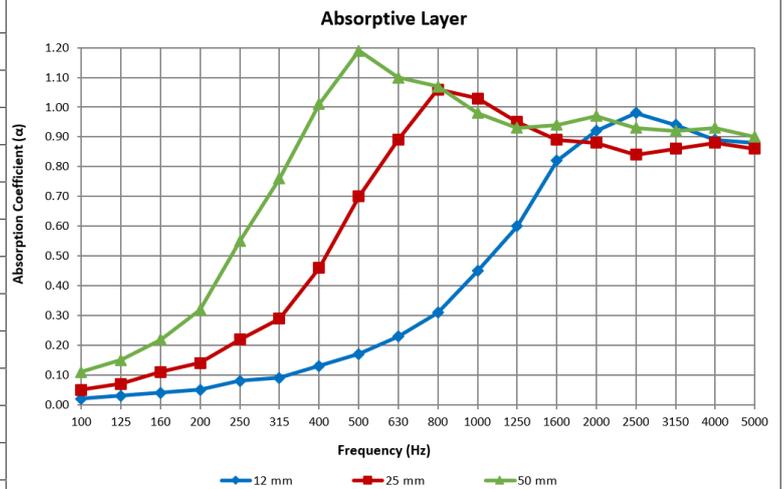
MATERIAL PROPERTIES

Test method	Property	Report no.	Results
UL 94*	Flammability of plastic materials	13513JY7	HF-1
FMVSS 302*	Flammability of interior materials	14713JY1	Complies to the requirements of US (DOT) Department of transportation for occupant compartments of motor vehicles

*Result applies to plain foam only.

ACOUSTIC PERFORMANCE (ABSORPTIVE LAYER)

Frequency (Hz)	12 mm	25 mm	50 mm
100	0.02	0.05	0.11
125	0.03	0.07	0.15
160	0.04	0.11	0.22
200	0.05	0.14	0.32
250	0.08	0.22	0.55
315	0.09	0.29	0.76
400	0.13	0.46	1.01
500	0.17	0.70	1.19
630	0.23	0.89	1.10
800	0.31	1.06	1.07
1000	0.45	1.03	0.98
1250	0.60	0.95	0.93
1600	0.82	0.89	0.94
2000	0.92	0.88	0.97
2500	0.98	0.84	0.93
3150	0.94	0.86	0.92
4000	0.89	0.88	0.93
5000	0.88	0.86	0.90
NRC	0.40	0.70	0.90
SAA	0.40	0.70	0.90
α_w	0.25 (H)	0.50 (MH)	0.85

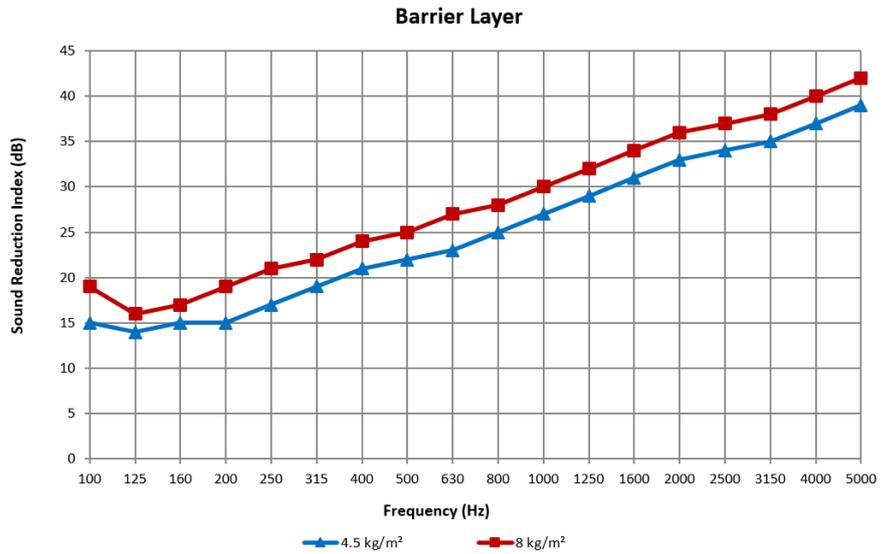


Tested to ISO 354:2003 at University of Canterbury, New Zealand
Report Numbers: 282, 283 & 284



ACOUSTIC PERFORMANCE (BARRIER LAYER)

Frequency (Hz)	4.5 kg/m ²	8 kg/m ²
100	15	19
125	14	16
160	15	17
200	15	19
250	17	21
315	19	22
400	21	24
500	22	25
630	23	27
800	25	28
1000	27	30
1250	29	32
1600	31	34
2000	33	36
2500	34	37
3150	35	38
4000	37	40
5000	39	42
R_w	26	30
STC	26	30



Tested to ASTM E90-09 at Riverbank Acoustical Laboratories, USA
Report Numbers: TL18-642 & TL18-643

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.

