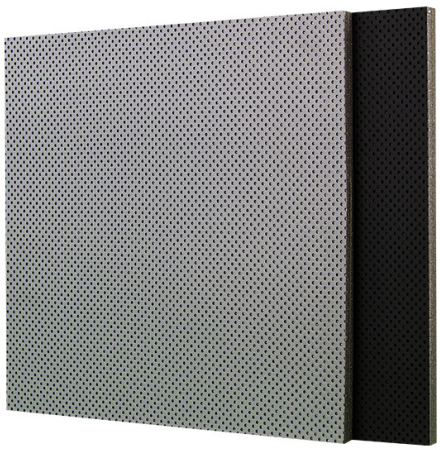
SORBERBARRIER V

sound absorber-barrier composite with perforated vinyl facing protection



Sorberbarrier V is a unique composite noise control product that offers excellent noise transmission loss performance and sound absorption with a hard-wearing perforated vinyl surface covering. It was developed to meet market requirements for reducing reflected reverberated noise in heavy equipment, automotive and marine industries, or where a cosmetic finish is required.

The high-performance of the product 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.

A perforated vinyl facing is laminated to the front surface of the foam to assist in absorbing sound in the mid to high frequencies. The resulting outcome provides a better acoustic environment which can enhance the clarity of speech.

Sorberbarrier V's facing is durable, flexible and designed with an attractive finish in either black, grey, beige, or sandpiper. Other colours are also available on request to meet customer specification.

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 V to target a broad range of frequencies, making it one of the most versatile acoustic solutions in the market place.

VOC, ODP, HEALTH AND SAFETY

Sorberbarrier V 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 V.

SPECIFICATIONS

Colour	Black, grey, beige, or sandpiper (Facing) Dark grey (foam)
Available	Sheet size: 1.3 m x 1 m Available in 20, 25, 32, 50 and 75 mm thickness
	Custom sizes, colours and/or thicknesses available depending on MOQ

applications

- Cabin lining for trucks, tractors, earth moving equipment
- Acoustic enclosures, control rooms and recording studios
- Power generation units, machinery and equipment enclosures

features

- Multifunction product: An absorber and barrier in one
- No ozone-depleting substances generated during manufacture
- Free from formaldehyde, phenolic resins and irritating fibres
- Sorberfoam is engineered to resist degradation (foam rot) more than traditional acoustic foam
- The facing allows noise energy to penetrate the acoustic foam through the perforation
- Quick and easily installed in challenging places
- Easy to cut, adhere or mechanically fasten into position
- Available with self-adhesive backing for ease of installation
- Can be constructed with other absorption products such as Sorbermel (See Sorberbarrier ML range technical data sheets)
- Available in black, grey, beige, or sandpiper colours. Different colours are available on request. Consult with your local Pyrotek representative for details.

PRODUCT SPECIFICATIONS

Product	Thickness	Construction Absorptive layer (mm)/Mass barrier (kg)/decoupler (mm)	Sheet size[1]	Thermal conductivity[2]	Operating temperature
Sorberbarrier V20/4.5	20	V12/4.5/06	1.3 x 1 m and 1.3 x 2.2 m	0.033 W/mK	-40 to 100 °C (Continuous) -40 to 120 °C (Intermittent)
Sorberbarrier V25/4.5	25	V12/4.5/12	1.3 x 1 m and 1.3 x 2.2 m		
Sorberbarrier V32/4.5	32	V25/4.5/06	1.3 x 1 m and 1.3 x 2.2 m		
Sorberbarrier V32/8.0	32	V25/8.0/06	1.3 x 1 m		
Sorberbarrier V50/4.5	50	V25/4.5/25	1.3 x 1 m and 1.3 x 2.2 m		
Sorberbarrier V50/8.0	50	V25/8.0/25	1.3 x 1 m		
Sorberbarrier V75/4.5	75	V50/4.5/25	1.3 x 1 m		
Sorberbarrier V75/8.0	75	V50/8.0/25	1.3 x 1 m		

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

[1]Useable 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.

[2]Typical value for Polyurethane foam - Polyurethane handbook: Chemistry, Raw Materials, Processing, Application, Properties 2nd edition.

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

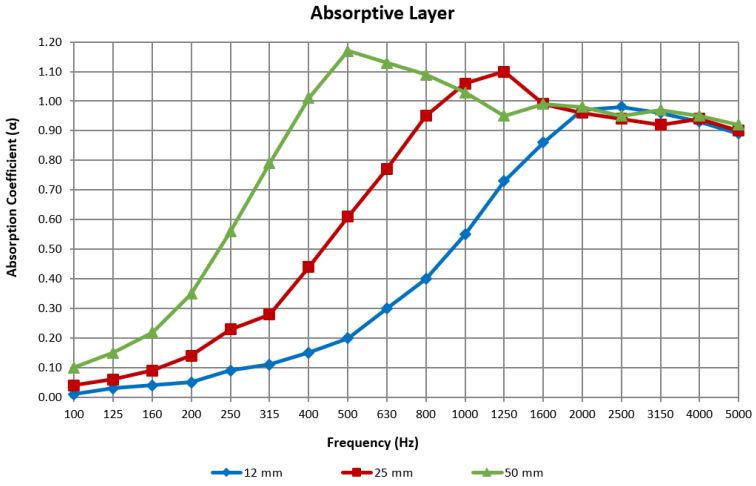
Test method	Property	Report no.	Results
UL 94*	Flammability of plastic materials	13513JY7	HF-1
FMVSS 302*	Flammability of interior materials	14713JY1	Complies to the requirements of US (DOT) Department of transportation for occupant compartments of motor vehicles

**Result applies to plain foam only.*

ACOUSTIC PERFORMANCE (ABSORPTIVE LAYER)

Frequency (Hz)	12 mm	25 mm	50 mm
100	0.01	0.04	0.10
125	0.03	0.06	0.15
160	0.04	0.09	0.22
200	0.05	0.14	0.35
250	0.09	0.23	0.56
315	0.11	0.28	0.79
400	0.15	0.44	1.01
500	0.20	0.61	1.17
630	0.30	0.77	1.13
800	0.40	0.95	1.09
1000	0.55	1.06	1.03
1250	0.73	1.10	0.95
1600	0.86	0.99	0.99
2000	0.97	0.96	0.98
2500	0.98	0.94	0.95
3150	0.96	0.92	0.97
4000	0.93	0.94	0.95
5000	0.89	0.90	0.92
NRC	0.45	0.70	0.95
SAA	0.45	0.71	0.92
α_w	0.30 (MH)	0.50 (MH)	0.85

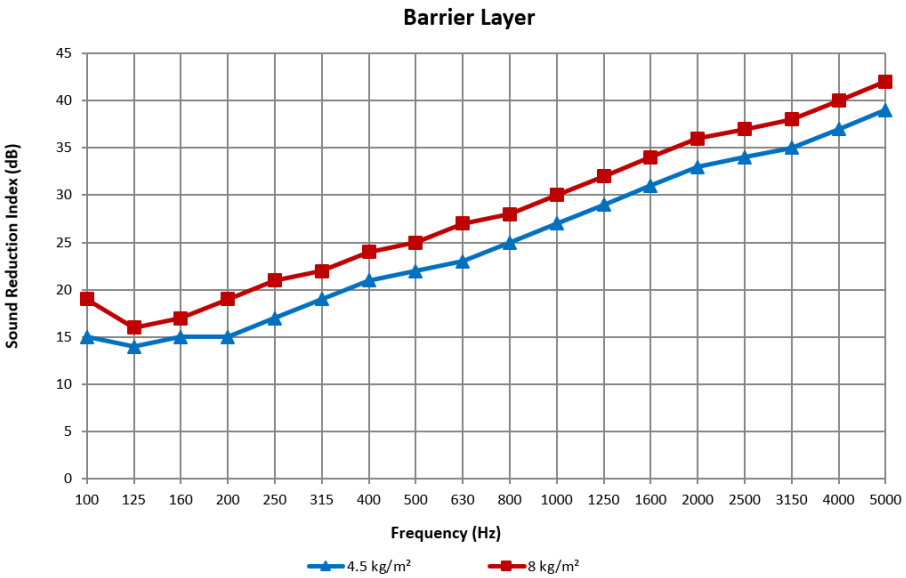
Tested to ISO 354:2003 at University of Canterbury, New Zealand
Report Numbers: 294, 295 & 296



ACOUSTIC PERFORMANCE (BARRIER LAYER)

Frequency (Hz)	4.5 kg/m²	8 kg/m²
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



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.
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