

SORBERBARRIER M

metallised polyester faced barrier - absorber composite

Sorberbarrier M is a unique composite noise control product that offers both excellent noise transmission loss and high absorption with a durable impervious facing of metallised polyester film. It was developed to meet market noise reduction requirements in light transport, mining equipment, marine and general OEM partial enclosures.

Sorberbarrier M combines the superior performance of the flexible mass barrier, Wavebar® together with the high absorption properties of Sorberfoam™.

The facing used on Sorberbarrier M affords mechanical protection and a decorative appearance. It is impermeable to contamination by dust, oil, liquids or sprays and allows for sound absorption in the high frequency range.

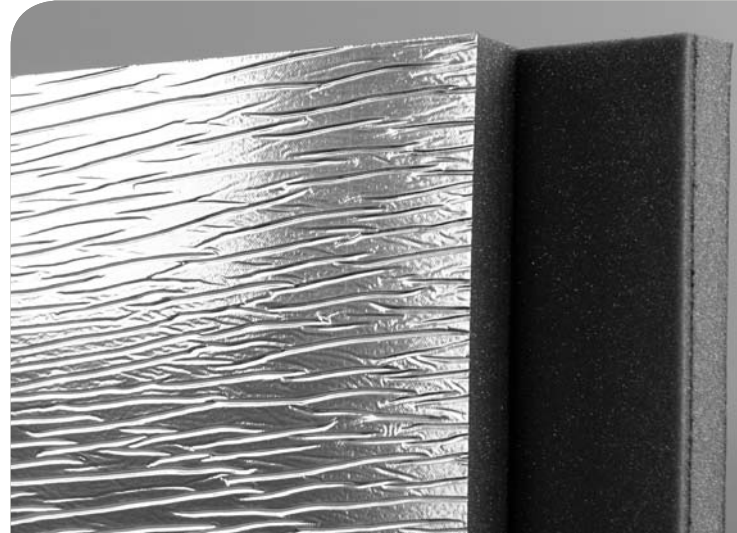
The excellent performance of Sorberbarrier is achieved by its unique construction. Placing the mass barrier between two layers of absorbing foam, keeps the barrier separate from the structure to which it is bonded, allowing it to remain flexible at all times, This increases noise transmission loss.

Tests have revealed that altering the thickness of foam that separates the noise barrier from the structure, improves the product's performance in some frequencies without an increase in overall weight.

Sorberbarrier M's surface allows for absorption in a broad range of frequencies which combined with a mass barrier provides maximum noise reduction, making it the most versatile product for controlling noise in the market place.

SPECIFICATIONS

| | |
|---------------|--|
| Colour | Silver or White, Grey foam <small>(other colours available on request – minimum quantities apply)</small> |
| Other facings | M (Silver), PU (Black), V (Grey), AGC, GC |
| Available | Available in 20, 25, 32, 50, 75 mm thickness |
| | 1.3 m x 1 m or custom depending on MOQ |



applications

- Mining equipment
- Machinery and equipment enclosures
- Compressor and generator set enclosures
- Hydraulic pump enclosures
- Car, boat, truck and bus compartments

features

- Multi-function product: An absorber and barrier in one
- Metallised polyester facing allows sound absorption in critical high and mid frequency region
- The light weight, semi decorative facing is highly reflective for enhanced lighting
- Impermeable to contamination from dust, oils, liquids, fuels or sprays
- No ozone-depleting substances generated during manufacture
- Free from formaldehyde, phenolic resins and irritating fibres
- Sorberfoam is engineered to substantially resist degradation (foam rot) more than traditional acoustic foam
- Available with self-adhesive backing for ease of installation
- Quick and easily installed in awkward places
- Easy to cut, adhere or mechanically fasten into position
- Custom designs available, profile cut into 2D or 3D shapes
- Can be constructed with other absorption products such as Sorberpoly™ and Sorbermel®
- Offers an alternative to mineral fibre products which tend to shed fibres



PRODUCT SPECIFICATIONS

| Product name | Total thickness (mm) | Construction Absorptive layer(mm)/ Mass barrier (kg)/ decoupler (mm) | Sheet size** (m) | Operating temperature range (°C) | Thermal conductivity (K) |
|-----------------------|----------------------|--|-------------------------|--|--------------------------|
| Sorberbarrier M20/4.5 | 20 | M12/4.5/06 | 1.3 x 1.0 and 1.3 x 2.2 | -40 to 100 (Continuous) -40 to 120 (Intermittent) | 0.033W/mK* |
| Sorberbarrier M25/4.5 | 25 | M12/4.5/12 | 1.3 x 1.0 and 1.3 x 2.2 | | |
| Sorberbarrier M32/4.5 | 32 | M25/4.5/06 | 1.3 x 1.0 and 1.3 x 2.2 | | |
| Sorberbarrier M32/8.0 | 32 | M25/8.0/06 | 1.3 x 1.0 | | |
| Sorberbarrier M50/4.5 | 50 | M25/4.5/25 | 1.3 x 1.0 and 1.3 x 2.2 | | |
| Sorberbarrier M50/8.0 | 50 | M25/8.0/25 | 1.3 x 1.0 | | |
| Sorberbarrier M75/4.5 | 75 | M50/4.5/25 | 1.3 x 1.0 | | |
| Sorberbarrier M75/8.0 | 75 | M50/8.0/25 | 1.3 x 1.0 | | |

Tolerances: Weight: +/- 0.5Kg; Thickness: +/- 3mm; Length and Width: -0 to +5mm * Typical value for Polyurethane foam - Polyurethane handbook: Chemistry, Raw Materials, Processing, Application, Properties 2nd edition
**Useable width is specified. Some surface coverings such as foils, films or fabric may overhang the useable width.

MATERIAL PROPERTIES

| Test method | Index | Results | Description |
|----------------------------------|-----------------------------------|--------------------|---|
| UL94 | After flame time \leq 2 seconds | HF-1 | Horizontal burn test for foam materials. Complies |
| FMVSS-302 (Report No. 15-002843) | Burn rate - mm/min (LOI) | Self extinguishing | Automotive burn rate test. |

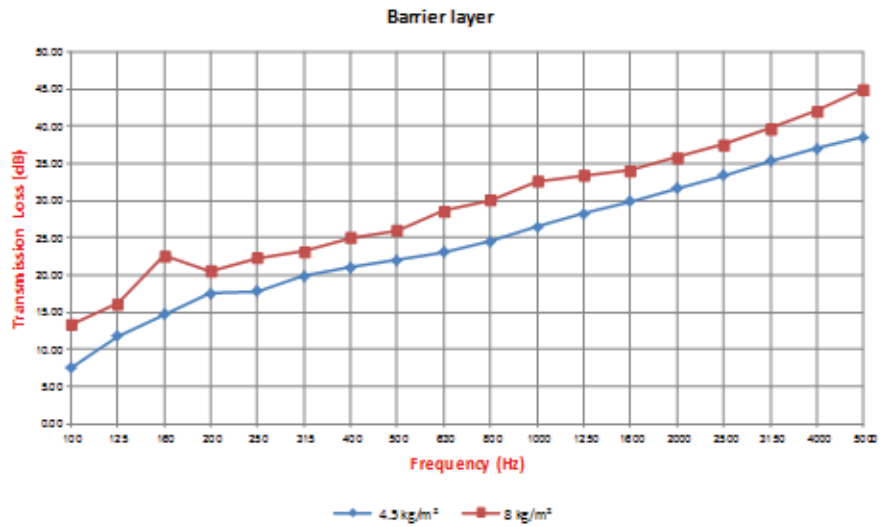
SELF-ADHESIVE TAPES SPECIFICATIONS

| CODE | DESCRIPTION | OPERATING SERVICE TEMPERATURE °C |
|------------|---|----------------------------------|
| Alpha - A | Premium high performance transfer tape suitable for most applications. | -10 to 110 |
| Alpha - A1 | Versatile, resilient, high tack adhesive with excellent bonding strength to a wide range of substrates. | -10 to 80 |
| Alpha - A2 | Scrim reinforced acrylic backing for extra strength and high durability. | -10 to 60 |

Under extreme temperature conditions or where the substrate surfaces cannot be free from contaminants, mechanical fixing will be required on vertical surfaces. For all inverted installations including ceiling installations, mechanical fixing must be done in addition to PSA adhesion. When ordering products with adhesive backing, please specify your choice of tape with the appropriate code A, A1 or A2 as Sorberbarrier M32A/4.5, Sorberbarrier M32A1/4.5 or Sorberbarrier M32A2/4.5. Unless otherwise stated, the standard adhesive backing supplied is premium grade (Alpha - A).

ACOUSTIC PERFORMANCE

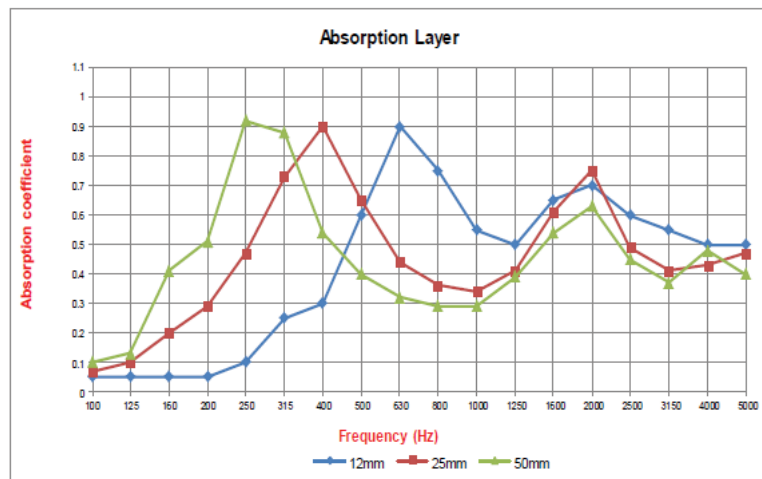
| Frequency (Hz) | 4.5 kg/m ² | 8 kg/m ² |
|----------------|-----------------------|---------------------|
| 100 | 7.50 | 13.30 |
| 125 | 11.76 | 16.19 |
| 160 | 14.66 | 22.55 |
| 200 | 17.50 | 20.51 |
| 250 | 17.80 | 22.29 |
| 315 | 19.80 | 23.16 |
| 400 | 21.00 | 25.00 |
| 500 | 22.00 | 25.99 |
| 630 | 23.10 | 28.58 |
| 800 | 24.50 | 30.09 |
| 1000 | 26.50 | 32.66 |
| 1250 | 28.20 | 33.43 |
| 1600 | 29.90 | 34.09 |
| 2000 | 31.60 | 35.86 |
| 2500 | 33.40 | 37.56 |
| 3150 | 35.30 | 39.74 |
| 4000 | 37.00 | 42.06 |
| 5000 | 38.60 | 45.00 |
| STC | 27 | 31 |
| R _w | 27 | 31 |



*Results for 4.5kg m² are tested to AS1191 Transmission loss report ATF-173 (revision 1)

**Results shown for 8kg m² are tested to ISO15186-1/ISO 10140-4 (Report No. 189 Issue: 1)

| Frequency (Hz) | 12 mm | 25 mm | 50 mm |
|----------------|-------|-------|-------|
| 100 | 0.05 | 0.07 | 0.10 |
| 125 | 0.05 | 0.10 | 0.13 |
| 160 | 0.05 | 0.20 | 0.41 |
| 200 | 0.05 | 0.29 | 0.51 |
| 250 | 0.10 | 0.47 | 0.92 |
| 315 | 0.25 | 0.73 | 0.88 |
| 400 | 0.30 | 0.90 | 0.54 |
| 500 | 0.60 | 0.65 | 0.40 |
| 630 | 0.90 | 0.44 | 0.32 |
| 800 | 0.75 | 0.36 | 0.29 |
| 1000 | 0.55 | 0.34 | 0.29 |
| 1250 | 0.50 | 0.41 | 0.39 |
| 1600 | 0.65 | 0.61 | 0.54 |
| 2000 | 0.70 | 0.75 | 0.63 |
| 2500 | 0.60 | 0.49 | 0.45 |
| 3150 | 0.55 | 0.41 | 0.37 |
| 4000 | 0.50 | 0.43 | 0.48 |
| 5000 | 0.50 | 0.47 | 0.40 |
| NRC | 0.50 | 0.55 | 0.60 |



AS ISO 354 RMIT

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.

