



Barrier - Absorber Composite with Aluminium Foil Covered Glass Cloth



Sorberbarrier® ML is a unique multilayered noise control product that offers both excellent noise transmission loss and high noise absorption. The composite comprises two layers of absorbing foam - **Sorbermel™**, a melamine resin based foam, and **Sorberfoam™**, a combustion modified polyurethane foam. The absorptive foam layers are bonded together with an inlay of a foil layer and a flexible mass barrier layer, **Wavebar®**. An aluminium covered glass cloth facing is laminated to the surface of the melamine foam layer to alter the natural absorption curve to absorb low frequency noise.

The melamine backbone exhibits excellent resistance to hydrolysis and combustion. The use of an aluminium foil covered glass cloth face enhances mid to low frequency absorption and provides additional protection to the foam from mechanical stress and dirt, oil and liquid ingress. 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 thus enhancing noise transmission loss.

Sorberbarrier ML combines the superior performance of the flexible mass barrier, **Wavebar®** together with the high absorption properties of foam layers, **Sorbermel™** and **Sorberfoam™**.

The inner aluminium foil layer provides excellent vapour and fire barrier. 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 ML's surface covering targets specific frequency ranges, which combined with a mass barrier provides maximum noise reduction, making it the most versatile product for controlling noise in the market place.

Refer to our website www.pyroteknc.com to check you have the latest information page

Sorberbarrier was formerly called Sorberflex

FEATURES

- Multi-function product: An absorber and barrier in one
- No ozone-depleting substances generated during manufacture
- Free from formaldehyde, phenolic resins and irritating fibres
- **Sorberfoam** range is engineered to resist degradation (foam rot) more than traditional acoustic foam
- Low spread of flame surface
- The ALG facing outperforms comparative products at lower frequencies
- Quick and easily installed in awkward places
- Easy to cut, adhere or mechanically fasten into position
- Choice of three high performance self adhesive tapes for easy installation (see page 2)
- Can be constructed with other decoupling layers such as **Sorberpoly™** and **Sorbermel™**

APPLICATIONS

- **Sorberbarrier** offers an alternative to mineral fibre products, which tend to shed fibres
- Engine rooms in boats under CE Marine Survey
- Power generation units and containerised generator sets
- Additional thermal and acoustic insulation for air-conditioning
- Engine compartments and firewalls of cars, boats, trucks, buses and construction machinery
- Machinery and equipment enclosures
- Pool and spa motor enclosures
- Whitegoods industry
- General enclosures

PRODUCT SPECIFICATIONS

PRODUCT NAME	TOTAL THICKNESS (mm)	CONSTRUCTION Absorptive melamine layer (mm)/Mass barrier(Kg)/Decoupler(mm)	SHEET SIZE ** (m)	OPERATING TEMPERATURE RANGE (°C)	THERMAL CONDUCTIVITY (K)
Sorberbarrier ML-ALG25/4.5	25	ML-ALG12/4.5/12	1.2 x 1.0 and 1.2 x 2.2	-40 to 220 (Continuous)	0.033W/mK*
Sorberbarrier ML-ALG50/4.5	50	ML-ALG25/4.5/25	1.2 x 1.0 and 1.2 x 2.2	-40 to 310 (Intermittent)	

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

**Supplied untrimmed. That is, some surface coverings such as foils, films or fabric may overhang the useable width.

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 ML-ALG25A/4.5, Sorberbarrier ML-ALG25A1/4.5 or Sorberbarrier ML-ALG25A2/4.5. Unless otherwise stated, the standard adhesive backing supplied is premium grade (Alpha - A).

(For details on properties of the classified self adhesive tapes and installation of PSA backed products, refer document 'PSA Tapes - 525IP' on our website www.pyroteknc.com)

FLAMMABILITY PROPERTIES

TEST METHOD	INDEX	RESULTS	DESCRIPTION
BS476 part 6 :1989+A1:2009 (Report No. 190739)	Fire Propagation Index	I = 3.5	Fire Propagation of products.
BS476 part 7: 1997 (Report No. 190740)	Class1 Class2 Class3	Class 1	Surface spread of flame.
Summary Report (Report NO. 199563)	UK Building Regulations	Class 0	Class 0 being the highest fire standard required by the British building code
BS 6853: 1999 Appendix D Clause D.8.4 (Report No. 189633 Issue 3)	A ₀ (ON) A ₀ (OFF)	A ₀ (on) 0.296 (average) A ₀ (off) 0.358 (average)	Smoke density test
IMO Res A 653(16)* IMO Res MSC 61(67) Annex1 Part 5 and Annex 2 (Certificate No. 164.112/1121/WCL MED 0267TE)	-	Complies WHEELMARK	EC Certificate of Type Examination - 96/98/EC Directive Module B
BS 6853 Annex B2 (Report No. 191587)	"R" value	R 0.37	Fume measurement test

*Results for melamine foam only

Caveats: Specifications are subject to change without notice. The data in this document are 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 or mechanical engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek NC 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 www.pyroteknc.com/disclaimer.

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