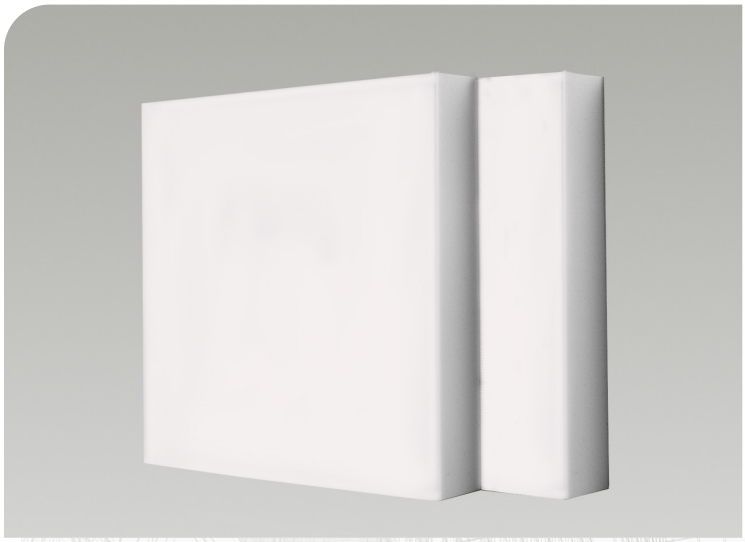


# SORBERMEL® MW

## fire retardant melamine foam with a metallised polyester film facing



Sorbermel MW is a lightweight and flexible open-cell light grey foam made from melamine reinforced with a durable impervious facing of metallised polyster film. It is a favoured choice in weight-sensitive applications.

The product features a three-dimensional delicate network structure of slender filaments. The open-cell structure enhances sound absorption and traps noise energy to prevent it from reflecting as an echo. Sorbermel is ideal where moisture resistance is required.

Being low-weight, Sorbermel MW contributes to the energy efficiency of transport and utility vehicles. It enhances mid to low frequency absorption and provides additional protection from mechanical stress and dirt, oil and liquid and increases the fire and thermal insulation performance of the product.

Sorbermel achieves some of the highest classifications in fire ratings to meet national and international standards. Sorbermel is the choice for various industrial applications such as the Automotive, Building and Construction.

### VOC, ODP, HEALTH AND SAFETY

Sorbermel MW is non-toxic and safe to handle by methods prescribed in the Safety Data Sheet.

### SPECIFICATIONS

| | |
|---|---|
| Colour | Light grey (foam)<br>White (Sorbertextile MW facing) |
| Available | Standard sheet size: 2.5 m x 1.3 m (8.2 ft x 4.3 ft)<br>Available thickness: 6 to 100 mm (0.24 to 3.94 in) |
| | Custom kit options, sizes, colours and/or thicknesses available depending on MOQ |

## applications

- Mining equipment and insulation of mining vehicles
- Industrial: Electronic/electrical equipment, white goods
- Engine rooms in boats under CE marine Survey

## features

- Fire-resistant sound absorber - impressive fire retarding properties without the addition of flame retardants
- Lightweight - offers energy efficiency and passenger safety in the transport industry
- Heat and light reflective
- Clean and easy to handle - free from irritating fibres
- Resists hydrolysis - will not rot
- Long service life - constant physical properties over a wide temperature range
- Self-supporting – no additional structures required to maintain shape
- Easily cut, shaped, fabricated and installed
- Custom kit options for design requirements
- Available with self-adhesive backing for ease of installation
- Available with hydrophobic treatment

## PRODUCT SPECIFICATION

| Thickness | Density (foam) EN ISO 845 | Standard sheet size (Length x Width) | Thermal conductivity (W/mK) DIN 52612 | Elongation at break DIN 53571 | Tensile strength DIN 53571 | Operating temperature range |
|---|---|---|---|---|---|---|
| 6 to 100 mm (0.24 to 3.94 in) | 9 kg/m³ (0.56 lb/ft³) | 2.5 x 1.3 m (8.2 x 4.3 ft) | 0.035 | 10% | 120 kPa (min) | -50 to 150 °C (-58 to 302 °F) |

*Tolerances: Length: -0/+50 mm (2 in); Width: -0/+5 mm (0.2 in); Thickness: ±2 mm (0.08 in); Density: ±1.5 kg/m³ (0.09 lb/ft³). Other thicknesses and sizes available.*

*Supplied untrimmed - means some surface coverings such as foils, films or fabric may overhang the ordered usable width.*

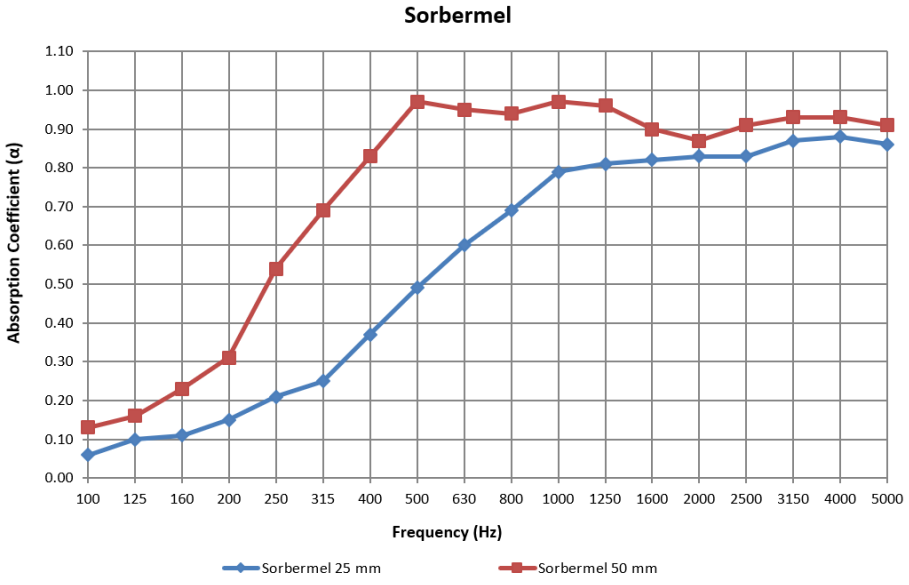
*All above products are available with pressure-sensitive adhesive backing. Under extreme temperature and humidity conditions, air flow or where the substrate surfaces cannot be free from contaminants, mechanical fixing will be required. For all inverted installations including ceiling installations, 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 |
|---|---|---|---|
| ISO 4589-3 | Determination of the burning behaviour of plastics by oxygen index at an elevated temperature of 60°C | 133.0ISO170/24 | 21.5% |
| ISO9094-1 | Classification/Compliance | | Complies to Directive 94/25/EC. Material suitable for use as insulation of engine space in recreational maritime craft. |

## ACOUSTIC PERFORMANCE

| Frequency (Hz) | Sorbermel 25 mm | Sorbermel 50 mm |
|---|---|---|
| 100 | 0.06 | 0.13 |
| 125 | 0.10 | 0.16 |
| 160 | 0.11 | 0.23 |
| 200 | 0.15 | 0.31 |
| 250 | 0.21 | 0.54 |
| 315 | 0.25 | 0.69 |
| 400 | 0.37 | 0.83 |
| 500 | 0.49 | 0.97 |
| 630 | 0.60 | 0.95 |
| 800 | 0.69 | 0.94 |
| 1000 | 0.79 | 0.97 |
| 1250 | 0.81 | 0.96 |
| 1600 | 0.82 | 0.90 |
| 2000 | 0.83 | 0.87 |
| 2500 | 0.83 | 0.91 |
| 3150 | 0.87 | 0.93 |
| 4000 | 0.88 | 0.93 |
| 5000 | 0.86 | 0.91 |
| NRC | 0.60 | 0.85 |
| SAA | 0.57 | 0.82 |
| $\alpha_w$ | 0.50 (MH) | 0.80 |




*Tested to ISO 354:2003 at University of Canterbury, New Zealand*

*Report Numbers: 297 & 298*

*Resultes are for un-faced Sorbermel*

*For further information and contact details, please visit our website pyroteknc.com*