

## SORBERMEL® AGC

### fire retardant melamine foam with a protective aluminium facing

Sorbermel AGC is a lightweight and flexible open-cell light grey foam made from melamine reinforced with a durable flame retardant aluminium foil-covered glass cloth facing (AGC). 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 AGC contributes to the energy efficiency of rail and utility vehicles. The use of the aluminium glass cloth face 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.

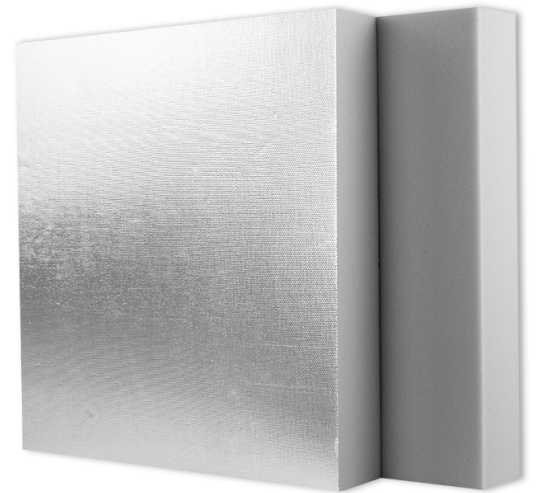
Sorbermel achieves some of the highest classifications in fire ratings to meet national and international standards. Sorbermel is the choice for various industrial applications such as the Rail, Automotive, Marine, Building and construction.

#### VOC, ODP, HEALTH AND SAFETY

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

#### SPECIFICATIONS

|           |  |
|-----------|--|
| Colour    | Light grey (foam)<br>Silver (Sorbertextile AGC 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

- Marine vessels and pleasure crafts
- Rail engine compartment and cabin insulation
- Enclosures: HVAC/air conditioning machinery and equipment enclosures, compressor and gen-set enclosures.
- Automotive transport: buses, trucks and cars
- Industrial: Electronic/electrical equipment, white goods
- Wall and ceiling linings and enclosures for industrial plant and equipment rooms,
- Applications with stringent fire rating compliance requirements

### 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
- Sorbertextile AGC facing outperforms comparable products at low frequencies
- 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)<br>EN ISO 845                                     | Standard sheet size<br>(Length x Width) | Thermal conductivity<br>(W/mK)<br>DIN 52612 | Elongation at break<br>DIN 53571 | Tensile strength<br>DIN 53571 | Operating temperature range      |
|----------------------------------|--|---|---|----------------------------------|-------------------------------|----------------------------------|
| 6 to 100 mm<br>(0.24 to 3.94 in) | 10 to 11 kg/m <sup>3</sup><br>(0.62 to 0.69 lb/ft <sup>3</sup> ) | 2.5 x 1.3 m<br>(8.2 x 4.3 ft)           | 0.035                                       | 10%                              | 120 kPa (min)                 | -40 to 150 °C<br>(-40 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/m<sup>3</sup> (0.09 lb/ft<sup>3</sup>). Other thicknesses and sizes available.  
Supplied untrimmed - means some surface coverings such as foils, films or fabric may overhang the ordered usable width.

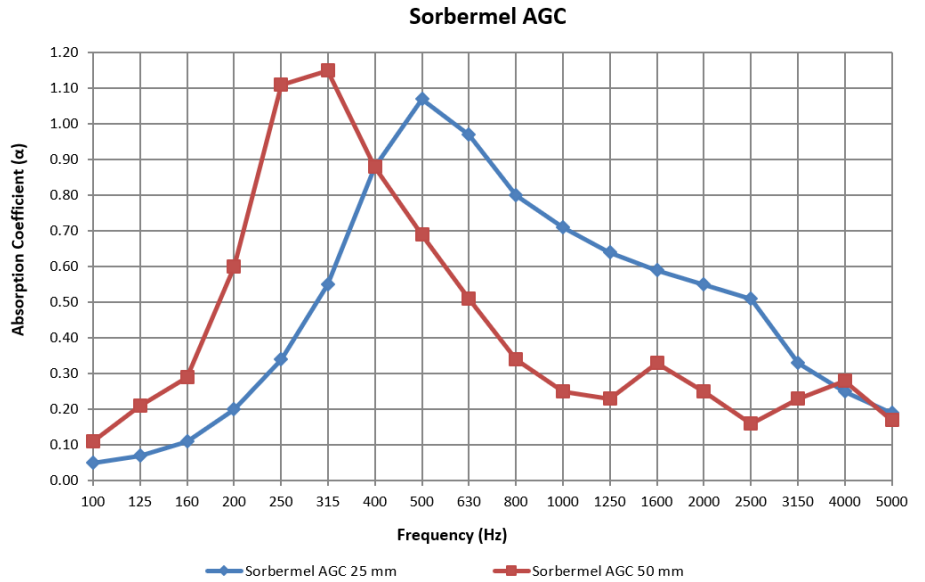
**MATERIAL PROPERTIES**

| Test method                                    | Property  | Report no.          | Results  |   |
|--|---|---------------------|--|---|
| EN 45545-2 (ISO 5658 <sup>-2</sup> )           | Spread of flame   | 369550, 369540      | R1, R7, R8, HL3  |   |
| EN 45545-2 (ISO 5660-1 : 50kWm <sup>-2</sup> ) | Heat release rate by cone calorimeter                         | 369546, 369537      |  |   |
| EN 45545-2 (ISO 5659-2 : 50kWm <sup>-2</sup> ) | Smoke generation (optical density)                            | 370758, 370757      |  |   |
| IMO FTP Part 5                                 | Surface flammability  | 369547              | Complies for bulkhead, walls and ceiling linings at 3 mm thickness or greater.<br>USCG Type approval granted |   |
| IMO FTP Annex 2                                | Smoke and toxicity  |                     |  |   |
| MED B  | EC Type Examination (Module B) for Marine Equipment Directive | 1121/WCL/ MED0267TE |  |   |
| MED D  | EC Type Examination (Module D) for Marine Equipment Directive | MEDD000015N         |  |   |
| FMVSS 302                                      | Flammability of interior materials                            | 14713JY4            |  | Complies to the requirements of US (DOT) Department of transportation for occupant compartments of motor vehicles |
| UL94 - HFB                                     | Flammability of plastic materials                             | 13513JY3            |  | HF-1  |

## ACOUSTIC PERFORMANCE

| Frequency (Hz) | Sorbermel AGC 25 mm | Sorbermel AGC 50 mm |
|----------------|---------------------|---------------------|
| 100            | 0.05                | 0.11                |
| 125            | 0.07                | 0.21                |
| 160            | 0.11                | 0.29                |
| 200            | 0.20                | 0.60                |
| 250            | 0.34                | 1.11                |
| 315            | 0.55                | 1.15                |
| 400            | 0.88                | 0.88                |
| 500            | 1.07                | 0.69                |
| 630            | 0.97                | 0.51                |
| 800            | 0.80                | 0.34                |
| 1000           | 0.71                | 0.25                |
| 1250           | 0.64                | 0.23                |
| 1600           | 0.59                | 0.33                |
| 2000           | 0.55                | 0.25                |
| 2500           | 0.51                | 0.16                |
| 3150           | 0.33                | 0.23                |
| 4000           | 0.25                | 0.28                |
| 5000           | 0.19                | 0.17                |
| NRC            | 0.65                | 0.60                |
| SAA            | 0.65                | 0.54                |
| $\alpha_w$     | 0.45 (M)            | 0.30 (LM)           |

Tested to ISO 354:2003 at University of Canterbury, New Zealand  
Report Numbers: 299 & 300



For further information and contact details, please visit our website [pyroteknc.com](http://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](http://pyroteknc.com/disclaimer).*

