

## SORBERMEL® H

### hydrophobic fire-resistant and sound-absorbing melamine foam

Sorbermel H is a flexible, open-cell, acoustic and thermal insulation product constructed using a melamine insulation base. It is lightweight, flame retardant and offers excellent sound absorption and thermal insulation properties. In addition, Sorbermel H incorporates patented hydrophobic treatment, which repels condensation and maintains thermal insulation of the product in high humidity environments. Hydrophobic properties are not only present on the surface of the material but also throughout its thickness hence maintaining its resistance even when Sorbermel H is cut to shape. The product is also available with a variety of facings to enhance its fire-resistant properties or to provide a layer of protection to the melamine base.

Sorbermel H is dimensionally stable, inherently moisture resistant and resists foam rot. The foam structure features a 3D network of thin melamine resin filaments that absorbs sound energy to prevent reverberation.

Being low-weight, it contributes to the energy efficiency of rail and utility vehicles, enhancing passenger safety. It's also particularly suited to building interiors where surfaces of insulation are exposed.

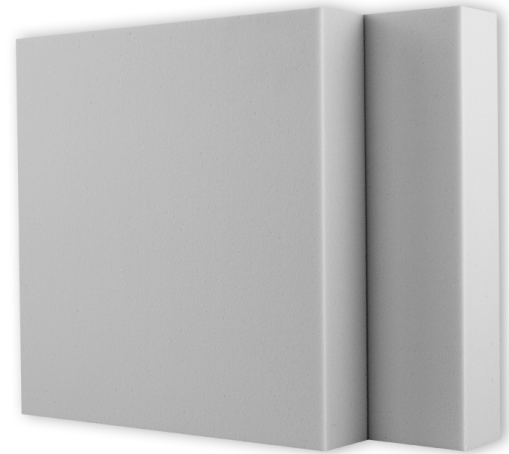
Sorbermel H is a favoured choice in weight-sensitive applications, harsh environmental conditions, or where enhanced fire safety properties are required. Its unique flexibility allows for easy installation with basic tools, making it perfect for use in rail, marine, automotive, building or construction industry.

#### VOC, ODP, HEALTH AND SAFETY

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

#### SPECIFICATIONS

Colour	Light grey
Available	Standard sheet size: 2.1 m x 1.25 m (6.89 x 4.1 ft) Thickness range: 10 to 40 mm (0.39 x 1.57 in)
	Custom sizes, facings and/or thicknesses available depending on MOQ



### applications

- Transport: engine compartments and cabin insulation for trains, buses, trucks or automotive
- Commercial buildings: HVAC systems
- Industrial: Machinery/generator set enclosures, electrical equipment, wall/ceiling linings for plant and equipment rooms

### features

- Lightweight - offers energy efficiency/passenger safety in the transport industry
- Wide sound absorption range and high thermal insulation properties
- Excellent fire retardant properties
- High continuous operating temperature
- Free of mineral 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
- Easy to cut, shape, fabricate and install
- Custom kit options available to meet size requirements Available with different surface coverings and self-adhesive backing for ease of installation
- Available with hydrophobic treatment




**PRODUCT SPECIFICATION**

Thickness	Density EN ISO 845	Standard sheet size (Length x Width)	Thermal conductivity (W/mK) DIN 12667	Elongation at break DIN 53571	Compressive strength EN ISO 3386-1	Tensile strength ISO 1798	Operating temperature DIN EN ISO 2578
10 to 40 mm (0.39 x 1.57 in)	9 kg/m <sup>3</sup> (0.56 lb/ft <sup>3</sup> )	2.1 x 1.25 m (6.89 x 4.1 ft)	0.035 @ 10 °C (50 °F)	10%	9 kPa (min)	120 kPa (min)	1000h > 200 °C (392 °F) 20000h > 150 °C (302 °F) Minimum -50 °C (-58 °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>)

Results based on BASF Basotect® G+

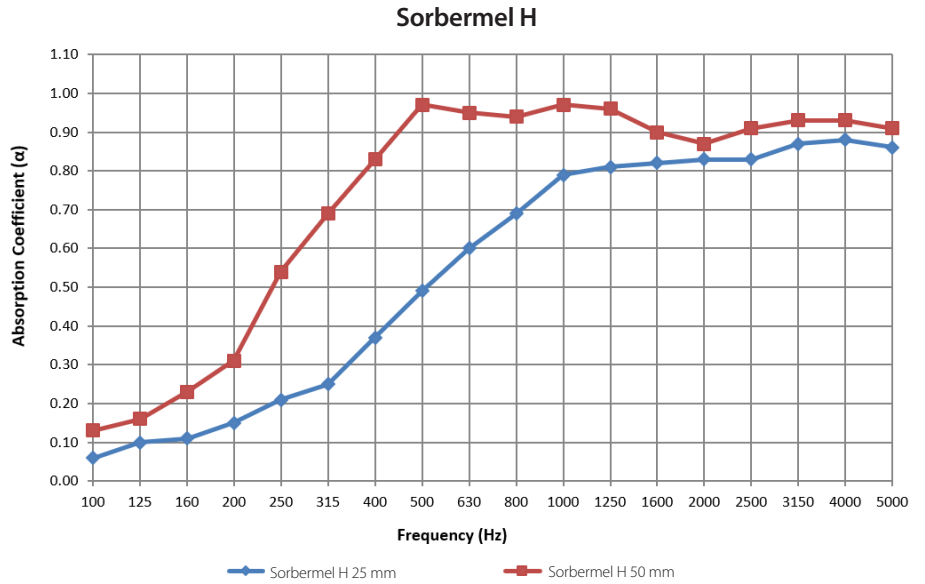
All above products are available with pressure-sensitive adhesive backing. Under extreme temperature and humidity conditions, air flow or where the substrate surfaces cannot be free from contaminants, mechanical fixing will be required. For all inverted installations including ceiling installations, 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
EN 45545-2 (ISO 5658-2)	Spread of flame	SL/Z-695/EN45545-R1/0800/2025	R1 (HL1, HL2, HL3)
EN45545-2 (EN 17084 (1) : 50 kWm <sup>-2</sup> )	Gas Toxicity		
EN 45545-2 (ISO 5660-1: 50kWm <sup>-2</sup> )	Heat release rate by cone calorimeter		
EN 45545-2 (ISO 5659-2: 50kWm <sup>-2</sup> )	Smoke generation (optical density)		
Internal using Rame - Hart Goniometer	Hydrophobicity Contact Angle	-	127 deg
ECE R 118	Annex 6 - Horizontal Burning Rate	E20*118R03/01*004041*00	Pass
	Annex 7 - Determination of Burning Behaviour		Pass
	Annex 8 - Vertical Burning Rate		Pass

## ACOUSTIC PERFORMANCE

Frequency (Hz)	Sorbermel H 25 mm	Sorbermel H 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  
 Acoustic results are based on unfaced Sorbermel

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).*

