

SORBERMEL®

fire-resistant and sound-absorbing melamine foam

Sorbermel 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. 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 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.

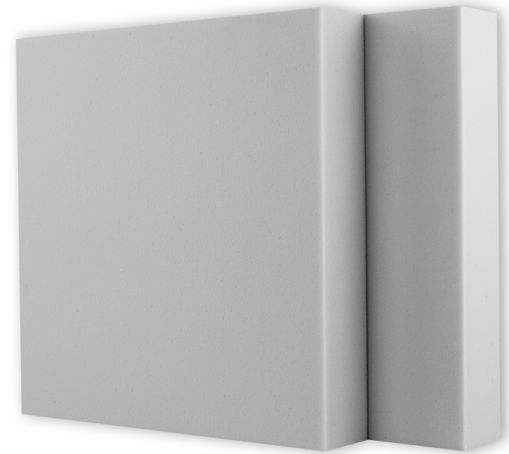
Sorbermel is a favoured choice in weight-sensitive applications, harsh environmental conditions, or where enhanced fire safety properties are required. Its unique flexibility allows for easy installation with basic tools, making it perfect for use in rail, marine, automotive, building or construction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

VOC, ODP, HEALTH AND SAFETY

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

SPECIFICATIONS

Colour	Light grey
Available	Standard sheet size: 2.5 m x 1.3 m (8.2 ft x 4.3 ft) Thickness range: 5 to 100 mm (0.2 to 3.9 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
5 to 100 mm (0.2 to 3.9 in)	9 kg/m ³ (0.56 lb/ft ³)	2.5 x 1.3 m (8.2 x 4.3 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/m³ (0.09 lb/ft³)

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

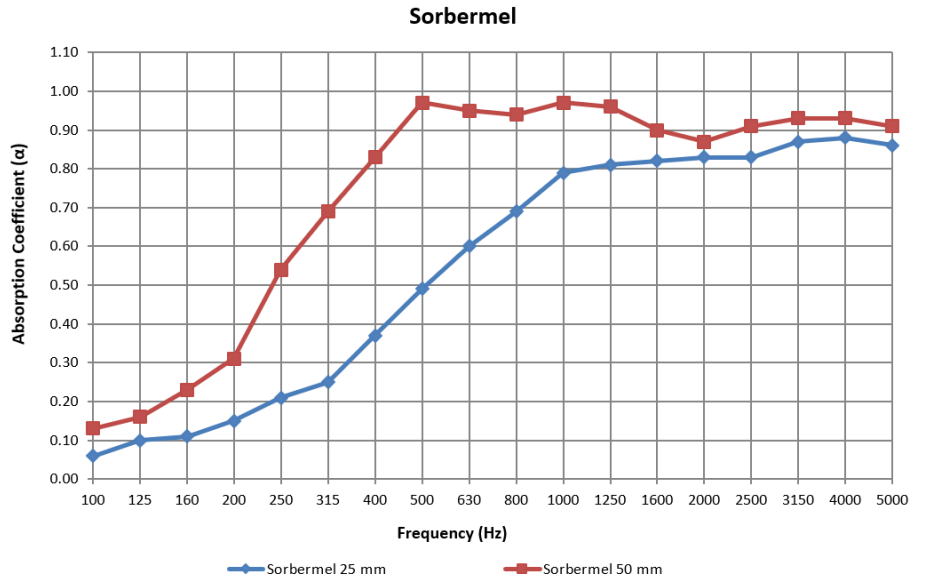
Test method	Property	Report no.	Results
EN 45545-2 (ISO 5658-2)	Spread of flame	400056	R1 (HL1, HL2)
EN 45545-2 (ISO 5660-1: 50kWm ⁻²)	Heat release rate by cone calorimeter		
EN 45545-2 (ISO 5659-2: 50kWm ⁻²)	Smoke generation (optical density)		
IMO Annex 1 Part 5	Surface flammability	187270	Complies for bulkhead, walls and ceiling linings at 20 mm thickness. USCG Type approval granted
IMO Annex 1 Annex 2			
MED B	EC Type Examination (Module B) for Marine Equipment Directive	ERO2812/MED0267TE	
MED D	EC Type Examination (Module D) for Marine Equipment Directive	MEDD000028J	
AS 5637.1/NZS 3837:1998	Fire hazard properties	FH 4999	Group 1
UL94	Flammability of plastic materials	13513JY3	HF-1 Self-extinguishing (SE)
FMVSS 302	Flammability of interior materials	14713JY4	Complies to the requirements of US (DOT) Department of transport for occupant
ASTM E 162	Surface Flammability	105447856MID-001	Complies for US (FRA) Federal railroad administration requirements and requirements of NFPA 130 - Complies for US (DOT) Department of transportation requirements for acoustic insulation of transit bus and vans (Docket 90A)
ASTM E 662	Optical Density of Smoke Generated	105447856MID-002REV1	
BOMBARDIER SMP 800C	Toxic gas generation	105447856MID-003	



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
α_w	0.50 (MH)	0.80

Tested to ISO 354:2003 at University of Canterbury, New Zealand
Report Numbers: 297 & 298



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.

