

SORBERFOAM™

combustion modified acoustic foam

Sorberfoam™ is the next generation of combustion modified, flexible acoustic foams, offering high noise absorption properties across a broad frequency range.

It was developed to meet market requirements for reducing reverberation noise in the domestic, commercial, OEM and automotive markets.

In conjunction with leading laboratories and test facilities, Pyrotek has formulated and developed a polyurethane foam that outperforms traditional acoustic foams by controlling the cell size, porosity, density and the flow resistivity throughout the cell structure.

Sorberfoam has been proven to absorb substantially more energy across the entire frequency range than traditional polyurethane foams.

Traditional polyurethane foams often break down through hydrolysis (foam rot) under hot, humid and acidic conditions. Sorberfoam is engineered to resist degradation or foam rot.

Sorberfoam offers an alternative to mineral fibre products that tend to shed fibres during application. If not encapsulated, those fibrous products can be deemed a health hazard. The tendency for fibrous products to lose thickness over a period of time means their absorption properties will also be reduced.

Sorberfoam eliminates the hazards and offers an equal and safer alternative in noise absorption.

SPECIFICATIONS

Surface Colour	Grey, others on request
Standard (Rolls or sheets)	Available in 15, 30, 60 m rolls Other roll lengths and sheet sizes also available
	Thicknesses from 6 to 100 mm
	1.4 m usable width (untrimmed)



applications

- Recording studios, home theatre and music rooms
- Designed wedge shapes for anechoic chambers
- Enclosures, compressors and generator casings
- Decorative wall and ceiling absorbing panels
- Decorative faced hanging ceiling baffles
- Office partition screens
- Automotive engine bays, cabin and cavity linings

features

- Low cost, long lasting, with over 40 years' industry use
- Custom designs available, profile cut into 2D or 3D shapes
- Does not shed irritating fibres
- Hydrolysis (foam rot) resistant
- Self-extinguishes upon flame removal
- No ozone-depleting substances generated during manufacture
- Free from formaldehyde and phenolic resins
- Quick and easily installed in awkward places
- Easy to cut, adhere or mechanically fasten into position
- Available with various surface coverings such as aluminium reinforced foil, metallised film, perforate vinyl, urethane film, glass cloth and textiles.
- Available in various widths, rolls or sheets
- Available with self-adhesive backing for ease of install or as part of custom cut kits
- All rolls are typically supplied at 1400 mm (Untrimmed)



PRODUCT SPECIFICATIONS

Standard thickness (mm)	Density ((kg/m ³))	Roll length (lineal m)	Roll width (mm)	Thermal conductivity (w/mk)	Operating temperature range °C
6	28	60	1400*	0.033**	-40 to +90 Continuous -40 to +130 Intermittent
12		60			
25		30			
50		15			

Tolerances: Length: -0 to +50mm; Width: -0 to +5mm; Thickness: +/- 2mm; Density: +/- 5%

*Supplied untrimmed - means some surface coverings such as foils, film or fabric may overhang the ordered useable width

**Polyurethane handbook: Chemistry, Raw Materials, Processing, Application, Properties 2nd edition.

All above products are available with pressure-sensitive adhesive backing. 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. Please consult your local Pyrotek representative for more information.

MATERIAL PROPERTIES

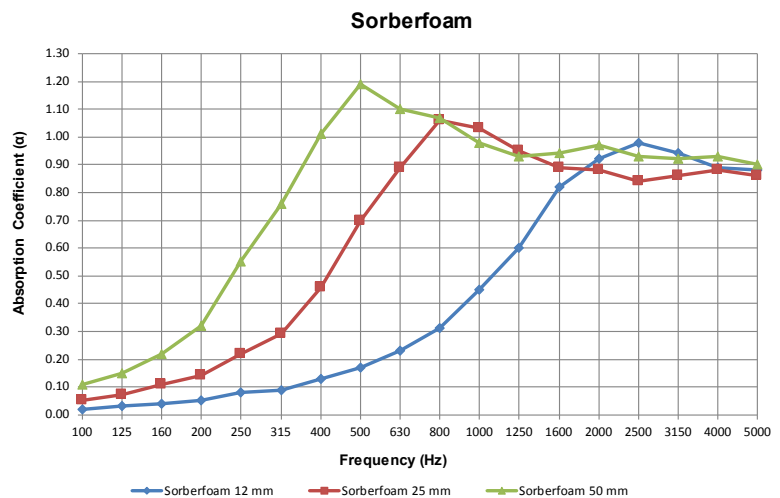
Test method	Index	Report no.	Results	Description
UL94	After flame time ≤ 2 seconds	Report No. 12211-MK1	HBF*	Horizontal burn test for foam materials. Complies.
FMVSS-302	Burn rate - mm/min (LOI)	Report No. 22210-MK5	Self extinguishing	Automotive burn rate test. Complies.

*Result applies to 12mm thickness.

ACOUSTIC PERFORMANCE

Frequency (Hz)	12 mm	25 mm	50 mm
100	0.02	0.05	0.11
125	0.03	0.07	0.15
160	0.04	0.11	0.22
200	0.05	0.14	0.32
250	0.08	0.22	0.55
315	0.09	0.29	0.76
400	0.13	0.46	1.01
500	0.17	0.70	1.19
630	0.23	0.89	1.10
800	0.31	1.06	1.07
1000	0.45	1.03	0.98
1250	0.60	0.95	0.93
1600	0.82	0.89	0.94
2000	0.92	0.88	0.97
2500	0.98	0.84	0.93
3150	0.94	0.86	0.92
4000	0.89	0.88	0.93
5000	0.88	0.86	0.90
NRC	0.40	0.70	0.90
SAA	0.40	0.70	0.90
α _w	0.25 (H)	0.50 (MH)	0.85

Tested to ISO 354:2003 at University of Canterbury, New Zealand
Report Number: 282, 283 & 284



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 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.

