

SORBERFOAM™ AGC

combustion modified acoustic foam with aluminium foil glass cloth facing

Sorberfoam™AGC combines the next generation of combustion modified, flexible acoustic foams laminated with a durable, flame retardant aluminium foil covered glass cloth surface covering-AGC.

In conjunction with leading laboratories and test facilities, Pyrotek has formulated and developed polyurethane foam that outperforms traditional acoustic foams by controlling the cell size, porosity, density and the flow resistivity throughout the cell structure. Traditional polyurethane foams often break down through hydrolysis (foam rot) under hot, humid and acidic conditions. Sorberfoam AGC is engineered to resist degradation or foam rot.

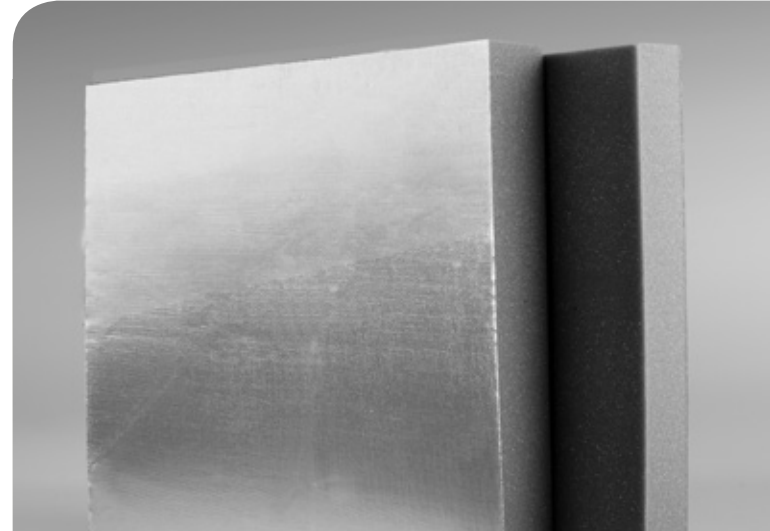
An aluminium foil covered glass cloth facing is laminated to the surface of Sorberfoam to alter the natural absorption curve enhancing sound absorption in mid to low frequencies. The facing also provides additional protection to the foam from mechanical stress and dirt, oil and liquid ingress and enhances the fire and thermal insulation performance of the foam. It offers higher level of flame resistance than Reinforced Aluminium (ALR) facing thereby enhancing the fire and thermal insulation performance of the foam.

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

Sorberfoam AGC offers an alternative to mineral fibre products that tend to shed fibres during application. The tendency for fibrous products to lose thickness over a period of time means their absorption properties will also be reduced. Sorberfoam AGC eliminates this hazard offering a safer alternative in noise absorption.

SPECIFICATIONS

Colours	Grey with silver facing
Standard (Rolls or sheets)	Available in 15, 30, 60 m rolls Other roll lengths and sheet sizes also available
	Thicknesses of 6, 12, 25, 50 mm
	1.4 m usable width (some surface coverings may overhang)



applications

- Engine rooms in boats under CE Marine Survey
- Power generation units
- Containerised generator sets
- Additional thermal insulation for air-conditioning
- Engine compartments and firewalls of cars, boats, trucks, buses and construction machinery
- Machinery and equipment enclosures
- Pool and spa motor enclosures
- Whitegoods industry

features

- The AGC facing outperforms comparative products at lower frequencies
- Impermeable to contamination from dust, oils, liquids, fuels or sprays
- No ozone-depleting substances generated during manufacture
- Free from formaldehyde and phenolic resins
- Low spread of flame surface
- Self-extinguishes upon flame removal
- Quick and easily installed in awkward places
- Easy to cut, adhere or mechanically fasten
- Hydrolysis (foam rot) resistant
- Does not shed irritating fibres
- Available in rolls or sheets
- Choice of three high performance self adhesives for ease of installation (See page 2)
- Seal joints with reinforced tape to eliminate water and dust penetrations



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 +110 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.

MATERIAL PROPERTIES

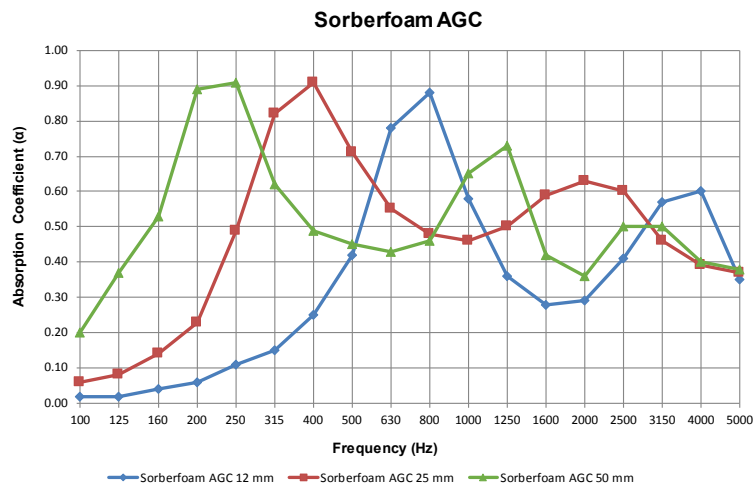
Test method	Index	Results	Description
ISO 4589.2 - 1996 (Report No. 328271)	Limiting ambient oxygen index (LOI)	22.6%	Determination of the burning behaviour of plastics by oxygen index at ambient temperature.
BS EN ISO 4589.3-1996 (Report No. 328272)	Limiting elevated oxygen index (LOI)	21.3%	Determination of the burning behaviour of plastics by oxygen index at an elevated temperature of 60°C.
EN ISO 9094-1:2003 (Report No. 328272A)	Classification/Compliance	Complies	Complies to Directive 94/25/EC. Material suitable for use as insulation of engine space in recreational maritime craft.
ASTM E162 & ASTM E662, NFPA130 / 49 CFR part 238 (Report No. 101731845MID-001b)	Is ≤ 25 , Ds(4.0) ≤ 100	Complies for acoustic insulation	Radiant panel index and smoke emission requirements of US (FRA) Federal Railroad Administration.
Docket 90A (Report No. 101731845MID-002b)	Is ≤ 25 , Ds(4.0) ≤ 100	Complies for acoustic insulation	Meets requirements of the US (DOT) Department of Transportation for transit bus and vans.
SMP 800C / ASTM E800 (Report No. 101731845MID-003b)	Critical concentration (ppm) of CO, CO2, NO2, SO2, HCL, HF, HBr, HCN	Complies	Toxicity requirements for transportation applications.
UL94* (Report No. 13513JY7)	After flame time ≤ 2 seconds	HF-1**	Horizontal burn test for foam materials. Complies
FMVSS-302* (Report No. 14713JY1)	Burn rate - mm/min	Self extinguishing	Automotive burn rate test. Complies

*For plain foam only;

**Result applies to 12mm thickness.

ACOUSTIC PERFORMANCE

Frequency (Hz)	12 mm	25 mm	50 mm
100	0.02	0.06	0.20
125	0.02	0.08	0.37
160	0.04	0.14	0.53
200	0.06	0.23	0.89
250	0.11	0.49	0.91
315	0.15	0.82	0.62
400	0.25	0.91	0.49
500	0.42	0.71	0.45
630	0.78	0.55	0.43
800	0.88	0.48	0.46
1000	0.58	0.46	0.65
1250	0.36	0.50	0.73
1600	0.28	0.59	0.42
2000	0.29	0.63	0.36
2500	0.41	0.60	0.50
3150	0.57	0.46	0.50
4000	0.60	0.39	0.40
5000	0.35	0.37	0.38
NRC	0.35	0.55	0.60
SAA	0.38	0.58	0.58
α _w	0.35 (MH)	0.55	0.50



Tested to ISO 354:2003 at University of Canterbury, New Zealand
Report Number: 280, 279 & 278

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.

