

SORBERZERO

fire retardant, high-density acoustic and thermal foam

Sorberzero is the next generation of combustion-modified, flexible acoustic foams, impregnated with flame-retardant minerals for high levels of fire resistance. It has been developed to meet market requirements in the rail, marine, automotive and construction industries.

Sorberzero is a high-density acoustic foam engineered to offer efficient noise absorption, control noise transfer and achieve high fire ratings to international standards. It's self-extinguishing, non-toxic and has a broad operating temperature range. This versatile, acoustic and thermal-insulation foam is suited to varied applications, including use as absorptive panels, internal and external duct linings, machine coverings and more importantly, in demanding applications where fire and heat resistance along with good sound absorption properties are required.

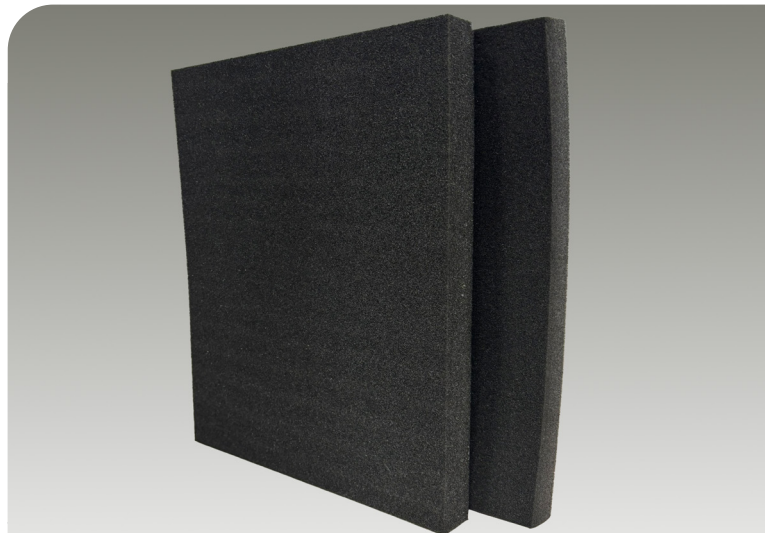
Sorberzero can be effectively used as a composite constituent with acoustic barrier materials, such as Pyrotek's range of Wavebar products, to construct variants of Pyrotek's range of Sorberbarrier and Soundlag composites, for acoustic floor treatments and lagging.

Sorberzero offers an alternative to traditional polyurethane foams that degrade under hot, humid and acidic conditions, and mineral fibre products that tend to shed fibres during application and also lose thickness over a period of time. Fibrous products, if not encapsulated, can be deemed a health hazard. In addition, their loss of dimensional stability leads to reduced noise absorption performance. Sorberzero eliminates these hazards and offers a safer, efficient alternative.

Sorberzero is flexible and easy to handle, cut and install, offered with or without self-adhesive backing. It's available either plain un-faced, or with various facings and fire-rated surface coverings.

SPECIFICATIONS

Colour	Dark grey
Standard (Rolls)	2 m x 1 m (6.56 ft x 3.28 ft) Custom sizes and thicknesses available depending on MOQ.



applications

- Automotive engine bays, cabin and cavity linings
- Construction
- Marine: Engine rooms and deck heads
- Rail carriages
- Residential : inside cavities or over lightweight wall, ceiling or floor construction
- Commercial: office partitions; air conditioning
- Applications where high heat resistance levels along with good sound absorption and thermal insulation properties are required

features

- Fire-retardant, self-extinguishing foam
- Impressive thermal, acoustic and fire properties
- No ozone-depleting substances generated during manufacture
- Free from formaldehyde and phenolic resins
- Available with or without self-adhesive backing.
- Quick and easy to cut, adhere or mechanically fasten
- Available with various surface coverings such as aluminium reinforced foil, metallised film, perforated vinyl, urethane film, glass cloth and textiles.
- Can be constructed using other barrier material layers to form composites for high fire-retardancy needs.
- Various roll lengths and sheet sizes also available
- Available with a range of mechanical fastening accessories and matching joining tapes for faced product



PRODUCT SPECIFICATIONS

Standard thickness	Sheet size	Nominal density	Thermal conductivity	Tensile strength ISO 1798	Elongation at break ISO 1798	Operating temperature range
25 mm (1 in.)	2 m x 1 m (6.56 ft x 3.28 ft)	50 kg/m ³	0.033 W/mK*	≥ 0.75 Kg/cm ²	≥ 140 %	-40 to 90 °C (-40 to 194 °F)
40 mm (1.5 in.)						

Tolerances: Length: -0 to +50mm; Width: -0 to +5mm; Thickness: +/- 2mm; Density: (-5/+10 kg/m³) *Polyurethane handbook: Chemistry, Raw Materials, Processing, Application, Properties 2nd edition.

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.

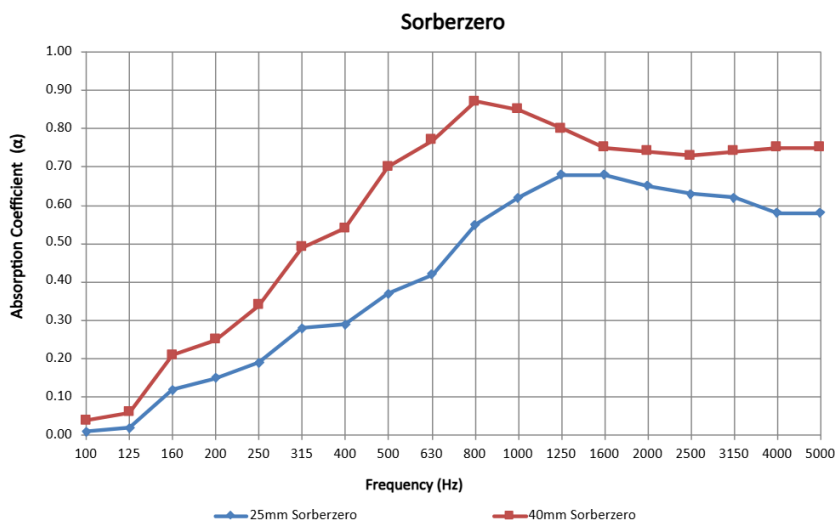
MATERIAL PROPERTIES

Test method	Index	Report no.	Results	Description
UL94	After flame time ≤ 2 seconds	Report No. 12211-MK1	HB*	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)	25 mm Sorberzero	40 mm Sorberzero
100	0.01	0.04
125	0.02	0.06
160	0.12	0.21
200	0.15	0.25
250	0.19	0.34
315	0.28	0.49
400	0.29	0.54
500	0.37	0.70
630	0.42	0.77
800	0.55	0.87
1000	0.62	0.85
1250	0.68	0.80
1600	0.68	0.75
2000	0.65	0.74
2500	0.63	0.73
3150	0.62	0.74
4000	0.58	0.75
5000	0.58	0.75
NRC	0.45	0.65
SAA	0.46	0.65
α_w	0.40 (H)	0.65



Tested to ASTM C-423/ISO 354

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.

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