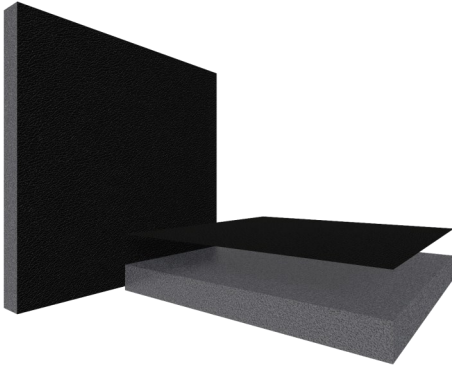




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## Polyurethane Film Faced Acoustic Foam



**Sorberfoam™ PU** combines the next generation of combustion modified, flexible acoustic foams, with a tough polyurethane, tear resistant surface covering, enhancing sound absorption in mid to high frequencies. It was developed to meet market requirements for reducing reflected reverberated noise in industrial and domestic enclosure, OEM and marine markets.

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.

**Sorberfoam** has been proven to absorb substantially more energy across the entire frequency range than traditional polyurethane foams. The facing used on **Sorberfoam PU** is applied by using a sophisticated process that optimises flow resistivity and maximises sound absorption. It acts as a protective facing in environments where sprays or dust may contaminate porous material with the black finish providing a more discreet look.

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

**Sorberfoam PU** 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 PU** eliminates this hazard offering a safer alternative in noise absorption.

### FEATURES

- The PU facing outperforms comparative products at lower frequencies
- The PU facing offers a tough puncture resistant surface and resists 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 thicknesses from 6 to 100mm
- Available in rolls or sheets
- Choice of three high performance adhesives for fixing (See page 2)
- All rolls are typically supplied at 1400mm (Untrimmed)
- Roll lengths - typically 15, 30 and 60 lineal metres. Various roll lengths and sheet sizes also available
- Surface colour: black (Other colours available on request)
- Matching self-adhesive tape or sprayable PU coating is available for sealing joins and edges of foam

### APPLICATIONS

- Machinery and equipment enclosures
- Compressor and generator set enclosures
- Electronic and electrical equipment cabinets
- Air conditioning units
- Insulation and interior sound absorption
- Electronic and electrical equipment
- Wall and ceiling linings for plant and equipment rooms

## PRODUCT SPECIFICATIONS

STANDARD THICKNESS (mm)	DENSITY (kg/m <sup>3</sup> )	ROLL LENGTH (lineal metres)	ROLL WIDTH (mm)	THERMAL CONDUCTIVITY (w/mK)	OPERATING TEMPERATURE RANGE (°C)
6	28	60	1400*	0.033**	-40 to +90 Continuous
12		60			
25		30			-40 to +110 Intermittent
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

## SELF ADHESIVE TAPES SPECIFICATIONS

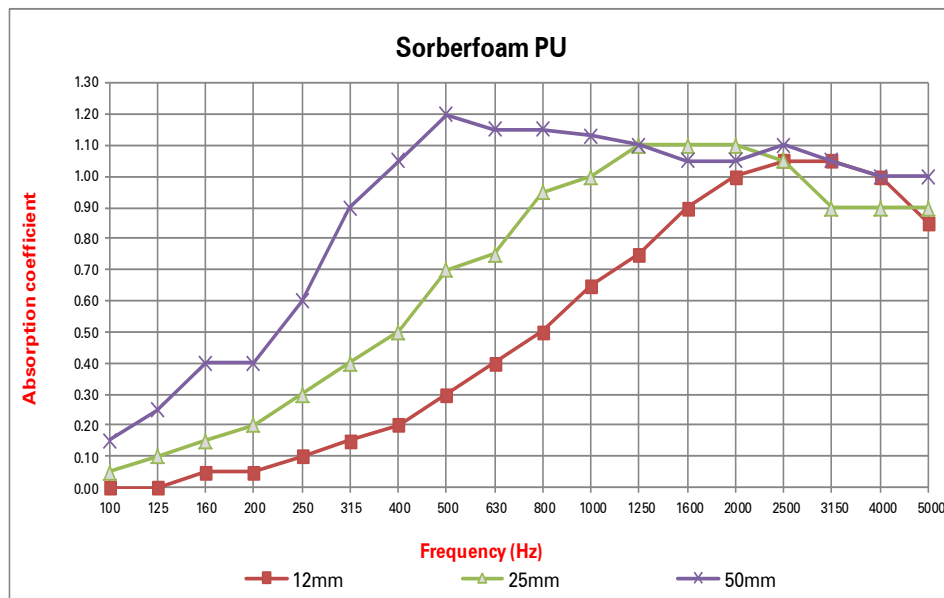
CODE	DESCRIPTION	OPERATING SERVICE TEMPERATURE °C
Alpha - A	Premium high performance transfer tape suitable for most applications.	-10 to 110
Alpha - A1	Versatile, resilient, high tack adhesive with excellent bonding strength to a wide range of substrates.	-10 to 80
Alpha - A2	Scrim reinforced acrylic backing for extra strength and high durability.	-10 to 60

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.

When ordering products with adhesive backing, please specify your choice of tape with the appropriate code A, A1 or A2 as Sorberfoam PU12A, Sorberfoam PU12A1 or Sorberfoam PU12A2. Unless otherwise stated, the standard adhesive backing supplied is premium grade (Alpha - A)

## ACOUSTIC PERFORMANCE

(AS ISO 354 RMIT)



Frequency (Hz)	12 mm	25 mm	50 mm
100	0.00	0.05	0.15
125	0.00	0.10	0.25
160	0.05	0.15	0.40
200	0.05	0.20	0.40
250	0.10	0.30	0.60
315	0.15	0.40	0.90
400	0.20	0.50	1.05
500	0.30	0.70	1.20
630	0.40	0.75	1.15
800	0.50	0.95	1.15
1000	0.65	1.00	1.13
1250	0.75	1.10	1.10
1600	0.90	1.10	1.05
2000	1.00	1.10	1.05
2500	1.05	1.05	1.10
3150	1.05	0.90	1.05
4000	1.00	0.90	1.00
5000	0.85	0.90	1.00
<b>NRC</b>	<b>0.50</b>	<b>0.80</b>	<b>1.00</b>

## FLAMMABILITY PROPERTIES

TEST METHOD	INDEX	RESULTS	DESCRIPTION
UL94	After flame time ≤ 2 seconds	HBF*	Horizontal burn test for foam materials.
FMVSS-302	Burn Rate - mm/min	Self Extinguishing	Automotive burn rate test.

\*Result applies to 12mm thickness.

Caveats: Specifications are subject to change without notice. The data in this document are 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](http://www.pyroteknc.com/disclaimer).

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Sorberfoam PU

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**Pyrotek**  
noise control