SORBERDAMP™

composite vibration damping and absorbing pad

Sorberdamp™ is an adhesive-backed composite pad, combining the benefits of a vibration damper and a noise absorber. It is designed to reduce resonant vibration and airborne sound within light gauge metal, timber and plastic structures of less than 3mm thickness.

Sorberdamp's multilayered construction comprises a damping material, laminated to a foil faced, high performance noise absorbing polyurethane foam, - Sorberfoam™. The standard foil facing - AGC, is a flame retardant aluminium glass cloth with fire retardant adhesive, complying with the highest rating to British fire standard and IMO Marine standard. The product has a high tack, peel and stick, pressure sensitive adhesive applied to the damping layer contact surface.

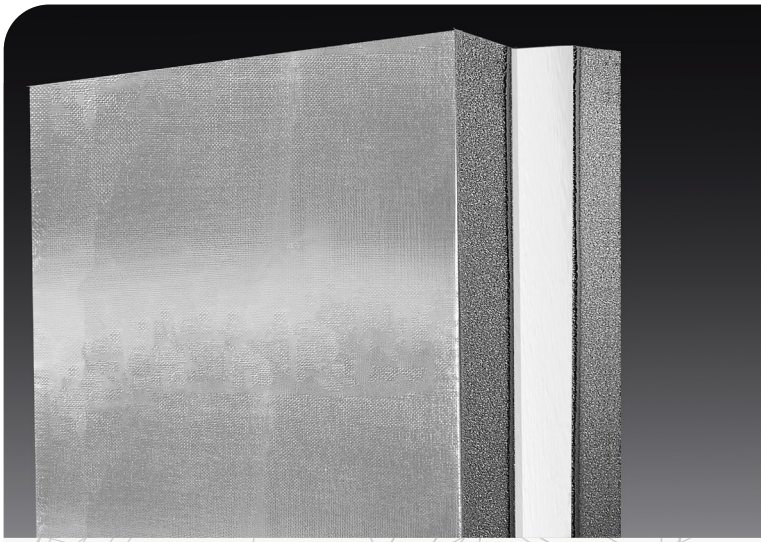
Being lightweight and flexible, Sorberdamp readily conforms to irregular surfaces and finds popular use in light-gauge panel components in automotive vehicles, boats, buses and trains. It works effectively in enclosed spaces such as engine bays, air-conditioning ducts and generators.

The damping layer controls the ringing noise from components under their operating cycle by dissipating the vibration energy within the structure. This inhibits build-up of resonant vibrations, considerably reducing radiated noise. The foam layer exhibits impressive performance in absorbing any air-borne noise generated in such enclosures.

The AGC covering, enhances the fire and thermal insulation performance of the product and tunes the foam to enhance noise absorption in the mid to low frequency range, besides providing additional protection to the foam from mechanical damage and dirt, oil and liquid ingress.

SPECIFICATIONS

Available	- thickness 6 to 50mm and compositions with other absorber materials including, fibreglass, melamine or polyester fibre - with matching AGC tape to seal joins.



applications

- Automotive floors, firewalls, doors, ceiling and boot panels
- Marine vessels: bulkheads, deckheads, hull construction and ventilation
- Generators, compressor covers and machine housing guards
- Metal air-conditioning ducts and compressor housings
- Laundry and garbage chutes, hoppers, lids and bins
- White goods and under sink bowls

features

- Dual benefits - vibration damping and noise absorption
- Flame retardant aluminium glass cloth covering - with highest fire ratings - Class 'O' to British standards.
- Ideal for lightweight panels and steel substrates of less than 3mm thickness
- No ozone-depleting substances are generated during manufacture
- Free from lead, odour-producing oils and bitumen
- Performance across a broad temperature range
- Lightweight, only 75% surface coverage is required to obtain maximum damping performance
- Easy to cut
- Easy installation with high-tack peel and stick adhesive backing
- Resistant to weather and UV light
- Can be constructed with other surface coverings

PRODUCT SPECIFICATIONS

Thickness (mm)	Sheet sizes (mm)	Weight (kg/m^2)	Peel strength (180°/ Stainless Steel) (N/25mm) AFERA 4001	Operating temperature range (°C)
25	1000 x 1300	3	>24	-10 to 100 (Continuous) -10 to 120 (Intermittent)

Tolerances: Length: -0/+50mm; Width: -0/+5mm; Thickness: +/- 0.5mm; Weight: -0/+10%
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	Index	Report no.	Results	Description
ISO 4589.2 & 3— 1996	Limiting Ambient Oxygen Index (LOI)	Report No. 328271/2	22.6% 21.3%	Determination of the burning behaviour of plastics by oxygen index at ambient and elevated temperature of 60oC.
EN ISO 9094-1:2003	Classification/ Compliance	Report No. 328272(A) Summary Report	Complies	Complies to Directive 94/25/ EC. Material suitable for use as insulation of engine space in recreational maritime craft.
UL94	After flame time ≤ 2 seconds	Report No. 13513JY7	HF-1**	Horizontal burn test for foam materials
FMVSS-302*	Burn Rate - mm/min	Report No. 14713JY1	Self Extinguishing	Automotive burn rate test. Complies

**For plain foam only*
***Result applies to 12mm thickness.*

ACOUSTIC PERFORMANCE

INCREASE IN DECAY RATE (dB/Sec) ON 1mm SUBSTRATE	
Steel	61%
Aluminium	77%

Report Number: 27313AR

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
α_w	0.35	0.55	0.50 (L)

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