Technical Information Sheet



Acoustic Foams Sound Absorbing pads, anechoic foam wedges, sound dampening foams and pads.

General Description

- Sound waves are a form of energy. When sound waves impinge on a surface, some of them are reflected back towards the source, some may be absorbed and the balance is transmitted. Sound absorbing materials lower or attenuate the noise level by absorbing part of the sound energy. Typical sound waves may consist of a mixture of low, medium and high frequency components.
- U-Foam's range of Acoustic foams offer unmatched properties unique, environmentally friendly, extraordinarily versatile polyurethane foams that can be fabricated into virtually any configuration, for use in hundreds of different products and applications







Types of Noise

- Low to medium frequency noise or rumble frequency range – 0 to 500 Hz Source – Compressors, grinders, crushers, engines, press and exhaust fans.
- Mid-range hums or chatter frequency range- 250 to 2,000 Hz Source — Office machinery, circular saws, human voice.
- High frequency squeal frequency range- 1,000 to 4,000 Hz and above
 Source — Ultrasonic welders, hydraulic pumps, fast small engines, some industrial cutting and polishing processes.

NRC

Noise **R**eduction **C**oefficient (NRC). The NRC of a material can be found by using either the Reverberation Room Method (ASTM C423) or the Impedance Tube Method (ASTM C384).

The higher the NRC rating, the more sound the material can absorb.

Acoustic foam is the most versatile of all noise control materials. U Foam's Decibel (dB) engineering has the right foam for your application.

Excellent absorber particularly in the mid-to-high frequency noise ranges. Good structural integrity and requires little mechanical support. Easy to cut and fasten to almost any surface with a water-based adhesive (available below).

Convoluted Acoustic Foam (CAF)

Convoluted Acoustic foam is an opencelled polyester foam featuring peaks and valleys which redirect sound waves into the foam where the sound is converted to kinetic energy and absorbed. Gives you 4 times more absorptive surface than flat foams. **Size**(mm): 2000(L) x 1000(W) **Thickness**(mm):25, 50, 75 **NRC rating:** 25mm-0.80 25mm-0.86 75mm - 0.91

Aluminized Foam (AF)

Aluminized Foam is an open-celled Polyester / Polyether foam with an added one mil. Aluminized facing, laminated to one side. The facing reflects light and heat and keeps dirt, dust and grease from blocking the absorptive surface of the foam. Especially effective in dirty, greasy industrial environments.

Size(mm): 2000(L) x 1000(W) **Thickness**(mm): 25, 50, 75 **NRC rating:** 0.70.

Standard Acoustic Foam(SAF)

Standard Acoustic foam is an opencelled Polyester / Polyether foam particularly effective at absorption of midto-high frequency noise.

Size(mm): 2000(L) x 1000(W) Thickness(mm):25, 50, 75 NRC rating 0.85





Typical Physical Properties

Thickness	Frequency (Hz)							
	125	250	500	1K	2К	4K	NRC	
12.5mm (0.5")	.00	.08	.16	.55	.98	.95	.44	
19.0mm (0.75")	.01	.11	.38	.92	.93	.86	.55	
24.0mm (1.0")	.06	.19	.74	1.00	.85	.97	.60	
38.0mm (1.5")	.10	.30	.77	1.04	.99	1.11	.80	

Products

	Si				
Туре	Length (mm)	Width (mm)	Thickness (mm)	NRC	
Convoluted Acoustic Foam	2000	1000	25	0.65	
Convoluted Acoustic Foam	2000	1000	50	0.80	
Convoluted Acoustic Foam	2000	1000	75	0.91	
Aluminized Foam	2000	1000	25	0.95	







IMPORTANT NOTICE REGARDING FLAMMABILITY—All polyurethane foams including combustion modified foams will burn and generate smoke and gases. Performance conditions and corresponding data refer to typical performance in specific tests, such as UL-94 and MVSS-302, and should not be construed to imply the behavior of this or any other product under other fire conditions. All data regarding these products were obtained using specific test methods under controlled laboratory conditions intended to measure performance against specifications. Due to the great number and variety of applications for which U-Foam products are purchased, U-Foam does not recommend specific applications or assume any responsibility for use results obtained or suitability for specific applications. IN NO EVENT SHALL BE RESPONSIBLE FOR ANY CLAIM IN EXCESS OF U-FOAM'S SALE PRICE OF THE PRODUCT TO WHICH THE CLAIM RELATES.



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