

# Sound Attenuation Foam



Polydamp® Type D Acoustical Foam, (PAF) is an acoustical grade, open cell, flexible ether based urethane foam designed to give maximum sound absorption for a given thickness. It has excellent resistance to heat, moisture and chemicals. All applications use 1.5” foam as standard.



## Foam Characteristics Sound Absorption: Nominal values of random incidence sound absorption coefficient per ASTM C384-77 for Plain/Tufflym

Foam Thickness	Frequency (Hz)					
	125	250	500	1000	2000	4000
(1.5 in) 38.1 mm	15/20	27/49	60/96	77/93	90/82	98/67
(2.0 in) 50.8 mm	20/30	40/66	90/98	100/96	96/85	100/75

	Test Standard	U.S. Standard
<b>Density, Nominal: (lb/ft<sup>3</sup>-kg/m<sup>3</sup>)</b>	ASTM-D-3574-91	1.85
<b>Tensile Strength: (PSI-KPa)</b>	ASTM-D-3574-91	12
<b>Elongation, %</b>	ASTM-D-3574-91	120
<b>Tear Resistance: (lb/in - N/M)</b>	ASTM-D-3574-91	1.3
<b>IFD: (PSI - KN/M<sup>2</sup>)</b>	ASTM-D-3574-91	30
<b>Compression Set (50%): %</b>	ASTM-D-3574-91	10
<b>Air Permeability (Tested at 1” thickness): (Rayles/M)</b>	ASTM C-522	
<b>Thermal Conductivity</b>		
<b>(BTU/hr. ft<sup>2</sup>, °F/in.)</b>	ASTM C-177	0.25

<b>Service Temperature</b>	
<b>Continuous</b>	-45°F (-43°C) TO 212°F (100°C)
<b>Intermittent</b>	250°F (121°C)
<b>Flame Resistance</b>	
UL94	HF-1
FAR.853(B)	PASS
SAEJ-369(B)	PASS
MVSS-302	PASS
DIN	PASS
<b>Humidity Resistance</b>	
Excellent; no significant decrease in tensile strength or elongation after 5 hrs. of steam autoclave at 250°F (121°C) per ASTM D3574-86, Test J.	
<b>Chemical Resistance</b>	
Excellent - no significant change in strength after 4 weeks immersion in common solvents, alkalies, acids, and water.	
<b>Estimated Service Life:</b>	
Min. 10 years at 80F (27°C) and 95% R.H.	

## Adhesive Characteristics

P4 is a high performance unsupported acrylic pressure sensitive adhesive exhibiting aggressive tack, high peel and shear, and good heat resistance. In addition, it has good chemical and plasticizer resistance as well as excellent long term aging and the ability to withstand environmental extremes.

<b>Adhesive Thickness (Nominal)</b>	0.004”
<b>Color of Adhesive</b>	Water Clear
<b>Release Liner</b>	76 lb Polycoated bleached kraft paper
<b>Service Temperature</b>	-40°F +200°F