

Urethane Foam Properties

Property	Test Method	7106	7110	7120
Density (lb/ft ³)	ASTM D-1622	6	10	20
Compressive Strength (psi)				
Parallel to Rise				
75°F	ASTM-D-1621	150	315	1060
200°F		80	170	580
Perpendicular to Rise				
75°F	ASTM-D-1621	170	305	1010
200°F		90	175	530
Compressive Modulus (psi)				
Parallel to Rise				
75°F	ASTM-D-1621	4250	10050	37300
200°F		2850	6450	19800
Perpendicular to Rise				
75°F	ASTM-D-1621	5300	9300	28200
200°F		3450	6250	15900
Tensile Strength (psi)				
Parallel to Rise	ASTM D-1623 Type A Specimens	150	250	750
Perpendicular to Rise		160	240	710
Shear Strength (psi)				
Parallel to Rise	ASTM C-273 in Compression	100	200	625
Shear Modulus (psi)				
Parallel to Rise	ASTM C-273 in Compression	1600	3050	7250
Flexural Strength (psi)				
Rise Parallel to Test Span	ASTM D-790 Method 1-A	170	400	1020
Rise Parallel to Beam thick		170	410	990
Hardness, Shore-D (cut foam surface)	ASTM D-2240	7.5	15.7	36
Water Absorption (lb/ft ³)	ASTM D-2842	0.017	0.014	0.009
Thermal Conductivity: (BTU-in/ft ³ *°F*h	ASTM C-518 at 75°F (24°C) mean temp.	0.214	0.264	0.388
Coefficient of Thermal Expansion: (in/in-°F)	From -50 to +200°F, GP Method	31 * 10 ⁻⁶		
Poisson's Ratio	Literature (Gibson & Ashby)	~0.3		
Class Transition Temperature, Tg (°F)	ASTM E-1824	240		
Max Use Temperature (°F)		220		
Fire Safety	Self-extinguishing via FAR 25.853 (A) tested vertically on 1/2" thick specimen 12 and 60- second ignition with a bunsen burner			