GENERALPLASTICS MANUFACTURING COMPANY

LAST-A-FOAM® FR-4500 RIGID POLYURETHANE FOAM (English Units)

Property	Test Method	FR-4510	FR-4512	FR-4515	FR-4518	FR-4520	FR-4530	FR-4540	FR-4550
Density (lbs/ft^3)	ASTM D-1622	10	12	15	18	20	30	40	50
Compressive Strength (psi)									
Parallel to Rise									
75°F	ASTM-D-1621	300	360	600	1,000	1,250	2,100	3,600	4,500
160°F		230	280	430	680	810	1,400	2,200	2,800
Perpendicular to Rise									
75°F	ASTM-D-1621	300	360	600	1,050	1,300	2,250	3,900	4,900
160°F		220	270	420	700	850	1,450	2,400	3,050
Compressive Modulus (psi)									
Parallel to Rise									
75°F	ASTM-D-1621	9,350	11,500	16,900	22,800	26,600	41,000	67,600	83,400
160°F		8,300	10,000	15,100	20,600	24,100	37,000	62,300	76,900
Perpendicular to Rise									
75°F	ASTM-D-1621	8,900	11,700	16,900	23,900	27,900	46,700	69,900	88,900
160°F		7,450	10,100	14,000	20,900	24,500	43,300	60,100	78,700
Tensile Strength (psi)									
Parallel to Rise	ASTM D-1623 Type A Specimens	260	290	425	730	880	1,500	2,500	3,100
Perpendicular to Rise		250	280	430	720	860	1,400	2,500	3,050
Flexural Strength (psi)									
Rise Parallel to Test Span	ASTM D-790 Method 1-A	380	410	670	1,100	1,350	2,100	3,900	4,800
Rise Parallel to Beam Thick.		390	410	670	1,100	1,350	2,150	4,000	4,900
Flexural Modulus (psi)									
Rise Parallel to Test Span	ASTM D-790 Method 1-A	16,700	18,700	27,500	42,700	50,700	80,900	138,000	171,000
Rise Parallel to Beam Thick.		15,700	18,400	26,600	42,000	49,800	82,600	133,500	168,000
Surface Roughness, sanded (µin)	SJ-201P per JIS B0601-1982	1,500	1,130	805	610	519	280	180	128
Thermal Conductivity: (BTU·in/ft^2·°F·h)	ASTM C-518 at 75°F (24°C) mean temp.	0.263	0.295	0.343	0.391	0.423	0.584	0.744	0.904
Coefficient of Thermal Expansion: (in/in-°F)	From -50 to +200°F, GP Method	29×10^{-6}							
Poisson's Ratio:	Literature (Gibson & Ashby)	~ 0.3							
Glass Transition Temperature, Tg (°F)	ASTM E-1824	220							
Max Use Temperature (°F)		200							
Fire Safety	Self-extinguishing via FAR 25.853 (A) App. F (a)(1)(i) & (ii) tested vertically on 1/2" thick specimen using 12- and 60- second ignition with a Bunsen burner								

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