



LAST-A-FOAM® FR-6700 RIGID POLYURETHANE FOAM (Metric Units)

Property	Test Method	FR-6710	FR-6712	FR-6715	FR-6718	FR-6720	FR-6725
Density (kg/m <sup>3</sup> )	ASTM D-1622	160	192	240	288	320	400
<b>Compressive Strength (kPa)</b>							
Parallel to Rise							
-54°C	ASTM-D-1621	3,850	5,800	9,300	10,700	14,800	21,400
24°C		2,400	3,650	5,850	7,150	9,650	14,000
93°C		1,500	2,300	3,500	4,200	5,500	7,800
121°C		1,100	1,600	2,350	2,900	3,500	4,750
Perpendicular to Rise							
-54°C	ASTM-D-1621	3,600	5,300	8,850	10,700	14,800	21,400
24°C		2,300	3,500	5,800	7,250	9,600	14,000
93°C		1,450	2,300	3,500	4,350	5,600	7,800
121°C		1,050	1,550	2,350	3,050	3,700	5,250
<b>Compressive Modulus (kPa)</b>							
Parallel to Rise							
-54°C	ASTM-D-1621	88,900	121,000	181,000	206,000	281,000	401,000
24°C		69,000	105,000	161,000	207,000	254,000	354,000
93°C		44,800	66,900	106,000	125,000	172,000	248,000
121°C		37,200	54,100	78,600	99,000	120,000	164,000
Perpendicular to Rise							
-54°C	ASTM-D-1621	74,500	105,000	170,000	205,000	277,000	400,000
24°C		60,700	95,800	152,000	197,000	244,000	344,000
93°C		41,400	66,900	107,000	130,000	173,000	247,000
121°C		35,200	51,400	77,200	99,000	120,000	166,000
<b>Tensile Strength (kPa)</b>							
Parallel to Rise	ASTM D-1623 Type A Specimens	1,950	2,400	3,600	4,350	5,500	7,650
Perpendicular to Rise		1,700	2,300	3,450	4,150	5,500	7,800
<b>Shear Strength (kPa)</b>							
Parallel to Rise	ASTM C-273 in Compression *Modified sample size = 0.64cm x 2.54cm x 7.62cm	1,550	2,150	3,250	4,150	5,050	6,900
<b>Shear Modulus (kPa)</b>							
Parallel to Rise	ASTM C-273 in Compression *Modified sample size = 0.64cm x 2.54cm x 7.62cm	75,200	100,000	134,500	174,000	191,000	245,000
<b>Flexural Strength (kPa)</b>							
Rise Parallel to Test Span	ASTM D-790 Method 1-A	2,700	3,800	5,500	6,400	8,400	11,700
Rise Parallel to Beam Thick.		2,650	3,950	5,600	6,850	8,400	11,400
<b>Flexural Modulus (kPa)</b>							
Rise Parallel to Test Span	ASTM D-790 Method 1-A	83,400	130,000	191,000	241,000	292,000	395,000
Rise Parallel to Beam Thick.		81,400	132,000	194,000	246,000	299,000	405,000
Hardness, Shore-D (cut foam surface)	ASTM D-2240	16.7	20.5	26.1	31.8	35.6	45.0
Water Absorption (kg/m <sup>2</sup> )	ASTM D-2842	0.238	0.212	0.175	0.137	0.111	0.049
Thermal Conductivity: [(W/m·K)]	ASTM C-518 at 24°C mean temp.	0.031	0.036	0.041	0.047	0.050	0.060
Specific Heat @25°C (J/g°C)	ASTM E-1269	1.573					
Heat of Combustion (MJ/kg)	ASTM D-240	25.5					
Coefficient of Thermal Expansion: (m/m-K)	From -46 to +93°C, GP Method	63 x 10 <sup>-6</sup>					
Poisson's Ratio:	Literature (Gibson & Ashby)	~ 0.3					
Glass Transition Temperature, Tg (°C)	ASTM E-1824	135					
Max Use Temperature (°C)		127					
Fire Safety	Self-extinguishing via FAR 25.853 (A) App. F (a)(1)(i) & (ii) tested vertically on 1.27cm thick specimen using 12- and 60- second ignition with a Bunsen burner						

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