



LAST-A-FOAM® FR-3700 RIGID POLYURETHANE FOAM (English Units)

PROPERTY	Test Method	FR-3703	FR-3704	FR-3705	FR-3706	FR-3707	FR-3708	FR-3710	FR-3712	FR-3715	FR-3718	FR-3720	FR-3725	FR-3730	FR-3740
Density (lbs/ft <sup>3</sup> )	ASTM D-1622	3	4	5	6	7	8	10	12	15	18	20	25	30	40
<b>Compressive Strength (psi)</b>															
Parallel to Rise															
-65°F	ASTM D-1621	70	120	180	240	300	360	500	600	1,100	1,600	1,950	2,950	3,950	5,800
75°F		45	70	110	150	180	220	300	370	730	1,100	1,250	2,200	2,950	4,500
200°F		35	60	80	100	125	150	210	240	420	600	720	1,250	1,700	2,000
250°F		25	40	60	75	90	110	150	190	310	430	490	810	1,100	1,650
Perpendicular to Rise															
-65°F	ASTM D-1621	65	100	170	230	300	360	510	620	1,100	1,600	1,900	3,100	4,200	6,400
75°F		40	65	110	150	190	230	320	400	760	1,100	1,300	2,200	2,950	4,500
200°F		30	50	70	100	120	150	200	250	450	640	750	1,290	1,750	2,700
250°F		25	40	55	75	95	120	160	200	320	450	500	840	1,150	1,700
<b>Compressive Modulus (psi)</b>															
Parallel to Rise															
-65°F	ASTM D-1621	1,750	2,950	4,250	5,500	6,500	8,100	11,000	13,400	22,000	30,600	39,500	45,200	55,600	74,500
75°F		1,250	2,050	3,300	4,500	5,500	6,900	9,600	11,700	19,000	26,200	31,600	40,900	51,500	72,200
200°F		990	1,650	2,500	3,400	4,000	5,200	7,300	8,700	14,800	20,900	25,400	38,500	51,100	76,300
250°F		710	1,200	1,950	2,700	3,200	4,200	5,700	7,200	11,700	16,200	18,000	28,600	37,400	55,300
Perpendicular to Rise															
-65°F	ASTM D-1621	1,600	2,450	3,800	5,100	6,300	7,800	10,800	13,200	22,300	31,300	39,100	47,200	58,600	80,800
75°F		1,100	1,750	3,000	4,200	5,300	6,700	9,300	11,700	19,300	27,000	32,000	41,000	51,100	70,800
200°F		830	1,300	2,200	3,150	3,900	4,950	6,900	8,700	15,100	21,400	25,100	39,600	52,600	78,700
250°F		650	1,100	1,800	2,500	3,100	3,950	5,500	6,800	11,700	16,600	18,200	29,600	38,900	57,800
<b>Tensile Strength (psi)</b>															
Parallel to Rise															
ASTM D-1623 Type A Specimens		75	100	130	165	180	220	290	340	540	740	820	1,400	1,850	2,750
Perpendicular to Rise															
ASTM D-1623 Type A Specimens		70	95	125	160	180	225	300	350	550	750	800	1,400	1,900	2,900
<b>Shear Strength (psi)</b>															
Parallel to Rise															
ASTM C273 in Compression *Modified sample size = 0.25"x1.0"x3.0"		40	65	90	100	140	170	225	260	440	575	690	970	1,300	2,000
<b>Shear Modulus (psi)</b>															
Parallel to Rise															
ASTM C273 in Compression *Modified sample size = 0.25"x1.0"x3.0"		2,000	3,500	4,700	5,500	7,300	8,700	11,500	14,600	19,300	25,000	27,000	37,000	38,000	61,000
<b>Flexural Strength (psi)</b>															
Rise Parallel to Test Span															
ASTM D-790 Method 1-A		65	100	160	210	250	310	430	500	820	1,150	1,250	2,100	2,750	4,150
Rise Parallel to Beam Thickness															
ASTM D-790 Method 1-A		60	100	160	220	265	330	450	560	850	1,150	1,250	2,100	2,500	4,150
<b>Flexural Modulus (psi)</b>															
Rise Parallel to Test Span															
ASTM D-790 Method 1-A		2,150	3,350	4,850	6,200	7,500	9,000	12,900	17,200	26,400	35,600	41,700	64,000	83,900	125,000
Rise Parallel to Beam Thickness															
ASTM D-790 Method 1-A		2,450	3,600	5,450	7,300	8,500	11,000	14,100	17,600	27,100	36,600	42,400	65,400	84,800	127,000
<b>Thermal Conductivity (BTU-in/ft<sup>2</sup>-°F-h)</b>															
ASTM C-518 at 75°F (24°C) mean temp.		0.208	0.21	0.208	0.226	0.235	0.244	0.258	0.274	0.306	0.337	0.358	0.411	0.464	0.570
<b>Coefficient of Thermal Expansion (in/in-°F)</b>															
From -50 to +200°F, GP Method		35 x 10 <sup>-6</sup>													
<b>Poisson's Ratio</b>															
Literature (Gibson & Ashby)		~ 0.3													
<b>Specific Heat @25°C (BTU/lb-°F)</b>															
ASTM E-1269		0.353													
<b>Heat of Combustion (BTU/lb)</b>															
ASTM D-240		11,700													
<b>Glass Transition Temperature, Tg (°F)</b>															
ASTM E-1824		280													
<b>Maximum Use Temperature (°F)</b>															
		260													
<b>Fire Safety</b>															
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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This data is subject to revision and changes due to development of and changes to the material. The data is derived from tests and historical usage. The data is averaged data and should be treated as such. These values do not constitute a sales specification. Calculations should be verified by actual tests. The data is furnished without liability for the company and does not constitute a warranty or representation in respect to the material or its use. The company reserves the right to release new data sheets in replacement.