



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

Property	Test Method	FR-4510	FR-4512	FR-4515	FR-4518	FR-4520	FR-4530	FR-4540	FR-4550
Density (kg/m ³)	ASTM D-1622	160	192	240	288	320	481	641	801
Compressive Strength (kPa)									
Parallel to Rise									
24°C	ASTM-D-1621	2,050	2,500	4,150	6,900	8,600	14,500	24,800	31,000
71°C		1,600	1,950	2,950	4,700	5,600	9,700	15,200	19,300
Perpendicular to Rise									
24°C	ASTM-D-1621	2,050	2,500	4,150	7,250	8,950	15,500	26,900	33,800
71°C		1,500	1,850	2,900	4,850	5,850	10,000	16,500	21,000
Compressive Modulus (kPa)									
Parallel to Rise									
24°C	ASTM-D-1621	64,500	79,300	116,500	157,000	183,500	282,500	466,000	575,000
71°C		57,200	69,000	104,100	142,000	166,000	255,000	429,500	530,000
Perpendicular to Rise									
24°C	ASTM-D-1621	61,400	80,700	116,500	165,000	192,500	322,000	482,000	613,000
71°C		51,400	69,600	96,500	144,000	169,000	298,500	414,500	543,000
Tensile Strength (kPa)									
Parallel to Rise	ASTM D-1623 Type A Specimens	1,800	2,000	2,950	5,050	6,050	10,300	17,200	21,400
Perpendicular to Rise		1,700	1,900	2,950	4,950	5,950	9,700	17,200	21,000
Flexural Strength (kPa)									
Rise Parallel to Test Span	ASTM D-790 Method 1-A	2,600	2,800	4,600	7,600	9,300	14,500	26,900	33,100
Rise Parallel to Beam Thick.		2,700	2,800	4,600	7,600	9,300	14,800	27,600	33,800
Flexural Modulus (kPa)									
Rise Parallel to Test Span	ASTM D-790 Method 1-A	115,000	128,900	189,500	294,500	349,500	558,000	952,000	1,180,000
Rise Parallel to Beam Thick.		108,500	126,900	183,500	289,500	343,500	569,500	920,000	1,160,000
Surface Roughness, sanded (µm)	SJ-201P per JIS B0601-1982	38	29	20	15	13	7	5	3
Thermal Conductivity:(W/m·K)	ASTM C-518 at 24°C mean temp.	0.038	0.043	0.049	0.056	0.061	0.084	0.107	0.130
Coefficient of Thermal Expansion: (m/m·K)	From -46°C to +93°C, GP Method	52 x 10 ⁻⁶							
Poisson's Ratio:	Literature (Gibson & Ashby)	~ 0.3							
Glass Transition Temperature, Tg (°C)	ASTM E-1824	104							
Max Use Temperature (°C)		93							
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								

08/30/2019

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.

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