GENERAL PLASTICS MANUFACTURING COMPANY
Exclusive manufacturers of LAST-A-FOAM polyurethane foams

Nominal Physical Property Data for LAST-A-FOAM® FR-3700 Rigid Foam at 12 pounds per cubic foot density

Property	English	Metric	Test Method
Density (pcf) (kg/m^3)	12	192	ASTM D-1623
Compressive Strength (psi) (kPa) Parallel to Rise			ASTM-D-1621
@ -65° F	757	5219	
@ 75° F	487	3355	
@ 200° F	289	1991	
@ 250° F	190	1307	
Perpendicular to Rise			
@ -65° F	732	5050	
@ 75° F	457	3154	
@ 200° F	284	1961	
@ 250° F	194	1340	
Compressive Modulus (psi) (kPa) Parallel to Rise			ASTM-D-1621
@ -65° F	15227	104993	
@ 75° F	13889	95762	
@ 200° F	10032	69172	
@ 250° F	7719	53223	
Perpendicular to Rise			
@ -65° F	14872	102542	
@ 75° F	12339	85080	
@ 200° F	9092	62691	
@ 250° F	7719	53223	
Tensile Strength (psi) (kPa)			ASTM D-1623 Type A Specimens
Parallel to Rise	424	2926	
Perpendicular to Rise	417	2876	

Tensile Modulus (psi) (kPa)			ASTM D-1623 Type B specimens
Parallel to Rise	15599	107556	
Perpendicular to Rise	16336	112639	
Shear Strength (psi) (kPa)			ASTM C-273 Compression Shear
Rise Parallel to Specimen Width	338	2329	
Rise Parallel to Specimen Thick	329	2271	
Shear Modulus (psi) (kPa)			ASTM C-273 Compression Shear
Rise Parallel to Specimen Width	3629	25020	
Rise Parallel to Specimen Thick	3760	25927	
Flexural Strength (psi) (kPa)			ASTM D-790 Method 1-A
Rise Parallel to Test Span	599	4128	
Rise Parallel to Beam Thick	572	3947	
Flexural Modulus (psi) (kPa)			ASTM D-790 Method 1-A
Rise Parallel to Test Span	17947	123743	
Rise Parallel to Beam Thick	13986	96435	
CTE: (in/in/°F) (K^-1)	~3.4x10^-5	~6.1x10^-5	From -50° to +200° F
Closed Cell Content (%)	96.3	96.3	ASTM D-2856 Procedure B
Thermal Conductivity "k" (BTU*in/ft^2*°F*h) [(W/m*K)]	0.246	0.035	ASTM C-518 at 75°F (24°C) mean temp
Poisson's Ratio	~0.3	~0.3	Literature (Gibson and Ashby)
Hardness, Shore-D (cut foam surface)	21.7	21.7	ASTM D-2240
Tumbling Friability - weight loss (%)	3.4	3.4	ASTM C-421 (20 minutes @ 60 rpm)
Water Absorption (lbs/ft^2) (kg/m^2)	0.013	0.063	ASTM D-2842
Glass Transition (°F) (°C)	279	137	TMA
Specific Heat @ 25°C (BTU/lb-°F) (J/g°C)	0.353	1.477	ASTM E-1269
Heat of Combustion (BTU/lb) (MJ/Kg)	11706	27.17	ASTM D-240
Fire Safety (FAR 25.853 12 & 60s vertical)	Pass	Pass	<15s extinguish time, <6 in burn length

Last revised **2004-04-07**

Warranty

General Plastics warrants only that the products it ships to the buyer will, at the time of shipment, meet the specifications as stated in the sales contract and be free from defects in material and workmanship. Typical physical properties as stated in

product data sheets are to be considered as representative "nominal" values and should not be treated as specifications. While all the product data information presented by General Plastics is believed to be reliable and to represent the best available physical property data on the products, the warranty of General Plastics is limited to the above expressed warranty. GENERAL PLASTICS MAKES NO OTHER GUARANTY, WARRANTY, OR REPRESENTATION, EXPRESSED OR IMPLIED, AS TO THE CORRECTNESS OR SUFFICIENCY OF ANY INFORMATION, OR AS TO THE MERCHANTABILITY, SUITABILITY OR FITNESS OF ANY PRODUCTS FOR A PARTICULAR PURPOSE. THE USER SHOULD CONDUCT A SUFFICIENT INVESTIGATION TO ESTABLISH THE SUITABILITY OF ANY PRODUCT FOR ITS INTENDED USE. If the products shipped by General Plastics do not conform to this warranty, it will correct the non-conformity by repair or replacement at its option. Liability of General Plastics for all claims, whether arising out of breach of contract, warranty, negligence, strict liability, or otherwise is limited to the purchase price of the material.

CAUTION: The flammability characteristics indicated for LAST-A-FOAM® are obtained from comparative tests, conducted under specific laboratory conditions. The sole purpose of these tests is to establish relative burning characteristics of foam materials. Terms such as "self extinguishing" or "flame spread" used in test data are not intended to reflect the fire hazard of LAST-A-FOAM® under actual use conditions. The test results are not accurate indicators of the flammability of LAST-A-FOAM® in actual fire environments.