

# LAST-A-FOAM® FR-6700

## Aerospace-grade Series



### PRODUCT OVERVIEW

LAST-A-FOAM®FR-6700 is a CFC-free, rigid, closed-cell, flame-retardant polyurethane foam for aircraft composite core that withstands process temperatures up to 250°F.

It is available in densities ranging from 10 to 25 pounds per cubic foot and exhibits a high strength-to-weight ratio due to its cellular structure and cross-linked resin. Because of its closed-cell structure, LAST-A-FOAM® FR-6700 has great resistance to water absorption and will not swell, crack, or split on exposure to water.

### CHEMICAL RESISTANCE

LAST-A-FOAM® products exhibit very good resistance to a wide range of chemicals and solvents. Common petroleum products such as oil or gasoline have no effect on LAST-A-FOAM®. Some chlorinated solvents will cause LAST-A-FOAM® to temporarily swell or soften, which can be useful in some applications. LAST-A-FOAM® is a thermoset material that is resistant to fungal growth and will not break down over time. If you need specific advice regarding chemical resistance, please contact us.



### KEY BENEFITS

- Stable
- Inert
- Will not support fungal growth
- Resistant to most chemicals and solvents
- Easily shaped with woodworking tools
- Performs well as wood replacement

### APPLICATIONS

- Models and design prototypes
- Composite Core
- Honeycomb edge close-out for aircraft interior sandwich panels used in overhead storage bins, passenger cabin class dividers, galleys and lavatories
- Vacuum form dies and mold patterns

## PHYSICAL AND THERMAL PROPERTIES

	FR-6710	FR-6718	FR-6720	FR-6725	Test Method
Density, pcf (kg/m <sup>3</sup> )	10 (160)	18 (290)	20 (320)	25 (400)	ASTM D-1622
Compressive Strength, psi (MPa)	564 (3889)	1572 (10839)	2151 (14831)	3101 (21381)	ASTM D-1621
Compressive Modulus, psi (MPa)	12865 (88704)	29893 (206112)	40832 (281537)	58099 (400593)	ASTM D-1621
Flexural Strength, psi (MPa)	391 (2696)	930 (6412)	1226 (8453)	1699 (11715)	ASTM D-790
Flexural Modulus, psi (MPa)	12086 (83333)	34870 (240429)	42373 (292162)	57321 (395228)	ASTM D-790
Tensile Strength, psi (MPa)	281 (1937)	629 (4337)	801 (5523)	1115 (7688)	ASTM D-1623
Coefficient of Thermal Expansion (CTE)	3.5 x 10 <sup>-5</sup>				From -50 to +200°F GP Method
Glass Transition Temperature [T <sub>g</sub> ], °F (°C)	275 (135)	275 (135)	275 (135)	275 (135)	ASTM E-1824
Thermal Conductivity, BTU*in/ft <sup>2</sup> *F*h (W/m*K)	0.212 (0.031)	0.324 (0.047)	0.349 (0.050)	0.414 (0.060)	ASTM C-518
Tumbling Friability - weight loss (%)	10.8	3.1	2.2	1.0	ASTM D-2842
Water Absorption (lbs./ft <sup>2</sup> )	0.049 (0.238)	.028 (.137)	0.23 (.111)	.010 (.048)	ASTM D-2842

### FR-6700 SHEET SIZES AND WORKMANSHIP STANDARDS

LAST-A-FOAM® FR-6700 series foams are available in densities of 10 to 25 pounds.

Commercial cutting tolerance	48" x 96" Sheets	18" x 100" Sheets
0" to 2.00" thick	± .030"	± .030"
over 2.00" thick	± .060"	± .060"
-0", + 0.50" on length, -0", + 0.25" on width dimensions		
Aircraft cutting tolerance		
0" to 1.00" thick	± .015"	
over 1.00" thick	± .030"	
0" to 1.1" thick		± .005"
1.1" to 2.0" thick		± .010"
over 2.0" thick		± .020"
-0"/+0.25" on length, -0"/+0.25" on width dimensions		

Please feel free to inquire about custom block size availability and costs. 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. 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.

General Plastics is certified to ISO 9001:2008/AS9100C and meets such demanding quality systems as NQA-1, Mil-I-45208A, and Boeing Company D6-82479.



Where Great Ideas Take Shape

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All General Plastics products are manufactured in the United States, and are free of CFCs and VOCs.