GENERALPLASTICS MANUFACTURING COMPANY

WHERE GREAT IDEAS TAKE SHAPE.

LAST-A-FOAM® FR-6700 AEROSPACE-GRADE SERIES

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 (122°C).

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.

FR-6700 is specifically designed to satisfy the physical property, flammability performance and processing requirements of multiple aerospace and military specifications. These include Boeing BMS 8-133, McDonnell-Douglas DMS-1937, and Federal Aviation Regulation FAR 25.853 (a). We can supply certificate of conformance and test data upon request.

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.

To save production time, General Plastics will pre-score FR-6700 boards for liquid resin infusion processes.

FEATURES & BENEFITS

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

POTENTIAL 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

CERTIFICATIONS & QUALITY SYSTEMS

ISO 9001:2015/AS9100D
NQA-1
Mil-I-45208A
Boeing Company D6-82473
ITAR-Compliant
Nadcap AC7130 Rev C.
Nadcap AC7130/1 Rev A.

PHYSICAL PROPERTY DATA

PROPERTY	UNIT	FR-6710	FR-6712	FR-6715	FR-6718	FR-6720	FR-6725	TEST METHOD
Density	lbs/ft^3	10	12	15	18	20	25	ASTM D-1622
	kg/m^3	160	192	240	288	320	400	
Compressive Strength (75°F)	psi	350	530	850	1,040	1,400	2,030	ASTM D-1621
	kPa	2,400	3,650	5,850	7,150	9,650	14,000	
Tensile Strength	psi	280	350	520	630	800	1,110	ASTM D-1623 Type A Specimens
	kPa	1,950	2,400	3,600	4,350	5,500	7,650	
Shear Strength	psi	225	315	470	600	730	1,000	ASTM C273 in Compression *Modified sample size - 0.25"x1.0"x3.0"
	kPa	1,550	2,150	3,250	4,150	5,050	6,900	
Flexural Strength	psi	390	550	800	930	1,220	1,700	ASTM D-790 Method 1-A
	kPa	2,700	3,800	5,500	6,400	8,400	11,700	
Coefficient of Thermal Expansion (CTE)	in/in-°F	35×10^{-6}						From -50 to +200°F, GP Method
	m/m-K	63×10^{-6}						
Max Use Temperature	°F	260						
	°C	127						

Values shown are parallel to the direction of rise and representative values.

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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.

For additional physical property data, please contact our technical sales group at 253.473.5000 or sales@generalplastics.com

STANDARD SHEET SIZES

PRODUCT	HEIGHT in (cm)	WIDTH in (cm)	LENGTH in (cm)
FR-6710	18 (46)	48 (122)	100 (254)
FR-6710	24 (61)	48 (122)	96 (244)
FR-6712	24 (61)	48 (122)	96 (244)
FR-6715	24 (61)	48 (122)	96 (244)
FR-6718	18 (46)	18 (46)	100 (254)
FR-6718	18 (46)	48 (122)	96 (244)
FR-6720	18 (46)	18 (46)	100 (254)
FR-6720	18 (46)	48 (122)	96 (244)
FR-6725	18 (46)	18 (46)	100 (254)

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