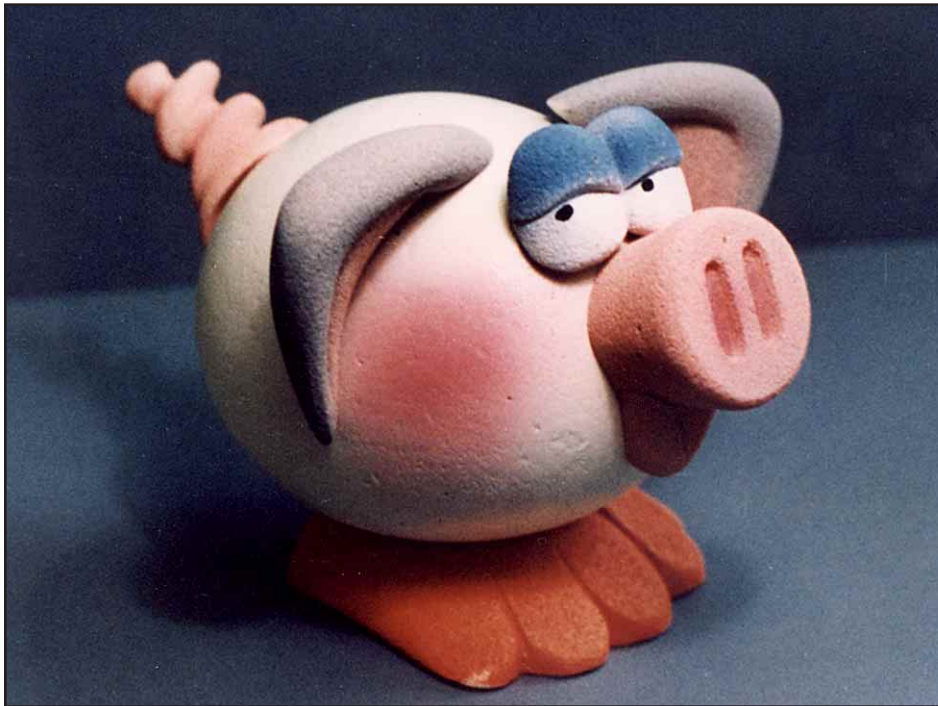


LAST-A-FOAM® FR-7100

GENERAL PLASTICS MANUFACTURING COMPANY

MODELING, TOOLING, CNC-PROOFING FOAM



Product Description:

LAST-A-FOAM® FR-7100 is a unique, fine-celled high-density polyurethane foam intended for proofing NC/CNC machine programs, prototype models, and other modeling applications where a versatile, stable, grain-free stock material is desired.

It is supplied in 4, 6, 8, 10, 12, 15, 18, 20, 25, 30 and 35 pound per cubic foot densities, in sheet thickness up to 12.0".

Standard sheet sizes: 48" x 48" and 48" x 96". 25 and 30 pound per cubic foot densities are available in 24" x 48" and 24" x 96" sheet sizes only.

Special sheet and block sizes are available —we will gladly quote on request.

PRODUCT BENEFITS

- Excellent medium for creating models and prototypes of all kinds.
- Exceptionally fine cell structure enhances paintability and finishing.
- Closed-cell, easily bonded and finished with a wide variety of adhesives and coatings.
- Low cost material for checking accuracy of machine-tool operations.
- Dimensionally stable, grain-free, easy to shape with a variety of cutting processes.
- Choice of densities allows control of weight and cost of models and tooling.
- Low-density type hand-carves and shapes with common woodworking tools.
- Higher densities for cutting with powered or CNC tools where more accuracy is desired.

PRODUCT DATA

Description:	Rigid polyurethane foam
Appearance:	Off-white color rigid foam, odorless
Standard Sheet Sizes: (Other sizes available on request.)	1.0 inch to 12.0 inches thick, 24" x 96", 48" x 48", 48" x 96" standard stock available.
Available Densities:	FR-7104 (4 lb. per cubic foot) FR-7106 (6 lb. per cubic foot) FR-7108 (8 lb. per cubic foot) FR-7110 (10 lb. per cubic foot) FR-7112 (12 lb. per cubic foot) FR-7115 (15 lb. per cubic foot) FR-7118 (18 lb. per cubic foot) FR-7120 (20 lb. per cubic foot) FR-7125 (25 lb. per cubic foot) FR-7130 (30 lb. per cubic foot) FR-7135 (35 lb. per cubic foot)
Coefficient of Linear Thermal Expansion:	3.5 - 5.0 x 10 ⁻⁵ between -310 oF and +200 oF.
Chemical Resistance:	Resists virtually all chemicals and solvents except strong acids and bases.
Dimensional Stability	FR-7104, FR-7106, FR-7108, and FR-7110: Good to very good FR-7112, FR-7115, FR-7118, and FR-7120, Very good to excellent FR-7125, FR-7130, FR-7135 Very good to excellent

BONDING, FILLING, AND SEALING LAST-A-FOAM® PRODUCTS

LAST-A-FOAM® FR-7100 can be bonded, filled, sealed and painted with a wide variety of commercially available finishing products. Our customers report greatest success with automotive and wood finishing materials, but the range of usable products is not limited to those types. General Plastics Manufacturing Company has prepared a “**Guide to Bonding, Filling, and Sealing Last-A-Foam® Products**”, available on request, to help with making appropriate finishing material selections. You should also follow manufacturer’s safety instructions when using any bonding, filling or finishing product with **LAST-A-FOAM®**, and observe their recommended precautions.

All rigid **LAST-A-FOAM®** products are made from polyurethane resins. One of the best characteristics of polyurethane is chemical resistance, allowing use of a wide variety of adhesives to bond foam with little risk of damage. Also, all rigid **LAST-A-FOAM®** is **closed-cell**, and very resistant to solvent penetration.

Use of solvent-based adhesives to bond LAST-A-FOAM® is not recommended, as solvents are unable to escape the bond line, and poor bonds will occur. An exception to this would be **Contact Cements**, which are allowed to dry before bonding takes place.

Also, since our rigid foams are good insulators, **heat-cured adhesives should not be used** unless the foam is “soaked” at high temperature long enough for the heat to penetrate the entire foam mass. Generally, this process should be avoided unless absolutely necessary.

Hot-Melt Adhesives can be used to bond foam sheets (or pieces) if allowed to fully cool before parts are handled. The reactive-type hot-melts, which employ a secondary cure mechanism for additional bond strength, can be especially useful.

If bond-joints are narrow, and exposed to air, such as in edge-bonding foam sheets, mastic-type **Construction Adhesives** can be useful. Solvents used in these adhesives must have an escape-path, however, or poor bonding will be the result.

The best adhesive materials to use in bonding rigid **LAST-A-FOAM®** foam products are **room-temperature curing reactive adhesives, i.e., adhesives which cure in the bond joint**. These following adhesive types are reactive adhesives:

- Epoxies
- Polyurethane Adhesives
- Cyanoacrylate (“superglue”)
- Acrylic Adhesives
- Contact Cements

MATERIAL HANDLING AND STORAGE SAFETY CONSIDERATIONS

When storing and handling rigid **LAST-A-FOAM®**, it should be treated as you would any possibly combustible organic solid. Storage precautions for wood are fully adequate when used with **LAST-A-FOAM®**. Scrap and waste **LAST-A-FOAM®** materials are inert and can be disposed of as you would ordinary solid waste.

Rigid **LAST-A-FOAM®** is essentially chemically inert, as the ingredients used to make it react completely during the manufacturing process. However, cutting, planing, shaping, routing and sanding Last-A-Foam produces dust. The inhaling of foam dust, as with any dust, should be avoided. Safety equipment appropriate for use in avoiding dust inhalation should be used when working with **LAST-A-FOAM®**.

IMPORTANT NOTICE TO PURCHASER: Test values shown in this document are not to be used for setting specifications. All statements, technical information, and data are based on testing we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. Users should perform their own tests on their own designs incorporating these materials to determine suitability for use in their application.

**MANUFACTURERS AND MOLDERS OF
LAST-A-FOAM® HIGH DENSITY RIGID
AND FLEXIBLE POLYURETHANE FOAMS**

AND

**FABRICATORS OF PLASTIC SHEETS
FOR AIRCRAFT, INDUSTRIAL, CONSTRUCTION, MARINE,
NUCLEAR, SHIPPING AND MODELING INDUSTRIES**



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