From Rocket Boosters to Flyaway Aircraft Parts, We Shape Ideas Into Aerospace and Defense Solutions

Aircraft and defense manufacturers have trusted General Plastics’ superior quality materials for high-quality parts and military applications for over 75 years. We supply custom-built polyurethane foam materials to original equipment manufacturers and Tier 1 and Tier 2 companies. Our custom-molded polyurethane products and aerospace-grade rigid foam core materials are used in aircraft flight decks and interior cabins.

We also machine and fabricate rigid foam board and flexible foam materials to demanding aerospace and military defense specification. Our materials have been engineered to satisfy the physical property and flammability requirements of the aerospace and military industries.

From parts fabrication to custom formulation and testing, turn to a proven solutions partner

General Plastics is qualified and equipped to manage all aspects of a molded-foam part program. Our team of estimators, CAD CAM designers, chemist, procurement specialists, and production staff will design, develop and deliver a program to satisfy your particular requirements. We can assist in part design, tool design, mold tooling manufacture, and production of parts through all phases to completion. When necessary, we will custom-formulate appropriate foam systems with all the physical properties and other attributes your project requires.

Molded-Part Capabilities & Facilities:
• Part/tool manufacture based on customer specifications
• Model-to-print and pattern-to-print services
• Mold tooling manufacture
• Formulating foam with full QA documentation
• Dedicated assembly room for engineered parts
• Segregated, controlled-access ITAR assembly room for military parts
• Mold development services

Testing Services:
• Flammability
• Physical Property
• Developmental

Custom Molding, Fabrication & Assembly Services:
• Pattern making
• Prototype design and manufacture
• Tooling
• CNC machining
• Painting
• Adhesive bonding
• Prepreg, potting and resin-infusion processes
• Tooling Board
• Prototypes
• Wingtip-Lens Transparencies
• Vacuum-forming Tools
• Mold Patterns

Applications:

Gap Management
• Gap seals
• Overhead Stow Bins
• Exit Row Armrests

Core Material
• Cabin Walls and Ceilings
• Service-Class Dividers
• Galley and Lavatories
• Sandwich Panel
• Honeycomb Edge Closeout

Flight Deck
• Overhead Headliners
• Assist Panels
• HUD Covers
• CD Post Pads
• Glare Shield Pads
• Kick Strips
PRODUCTS AT A GLANCE

Flexible Foams – Sheet and Custom Parts
Available in multiple densities, General Plastics’ versatile polyurethane flexible foams are a staple of aircraft interiors. Certified to meet FAR 25.853 standards, our self-skinning, fire-retardant flexible foam products are used extensively in flight deck and cabin applications. They deliver solid efficiency while absorbing energy at a consistent, controlled rate.

- LAST-A-FOAM® WSF-1010
- LAST-A-FOAM® WSF-1121
(Available only within a finished parts program)
These flame-retardant, durable, self-skinning foams are used extensively in aircraft flight decks and cabin applications. Both are self-extinguishing and can be custom-molded to each client’s exacting specifications. The softer, more pliable LAST-A-FOAM® WSF-1010 Series is ideal for interior gap seals where aesthetics are important. It can be tinted and painted a variety of colors. The tough, integral-skin LAST-A-FOAM® WSF-1121 Series is used for molded and fabricated flight-deck padding and interior parts. It can be pigmented and in-mold painted for a lasting finish.

- LAST-A-FOAM® EF*/EFR-4000 Energy Absorption Flexible Series
- LAST-A-FOAM® TF 5070 Absorption Semi-flexible Series
- LAST-A-FOAM® TF 6070* Energy Absorption Semi-Flexible Series
- LAST-A-FOAM® FP 8000 Energy Absorption Semi-rigid Series
*Not fire-retardant
(Available only as sheet stock)

Offered in sheets, blocks and molded parts, these products are extremely durable and resistant to environmental stresses. They are formulated to absorb significant energy while protecting payloads from high stress levels. Specific product applications include aircraft interior crash padding, and vibration dampening/cushioning for missiles and nuclear submarine launch tubes.

Rigid Foams
LAST-A-FOAM® rigid foam products are cost-effective, versatile, strong and durable. They are manufactured using our unique chemical formulas to be exceptionally uniform and consistent in all physical properties. General Plastics offers a wide spectrum of foam formulations, in multiple shapes and densities.

- LAST-A-FOAM® FR-3800 FST Performance Core
This lightweight, rigid foam core satisfies fire, smoke and toxicity (FST) performance needs. Used in conjunction with other materials, it contributes to both aesthetics and safety. This product complies with the Ohio State University (OSU) 65/65 heat release standard, FAA flame and smoke regulations, and aircraft manufacturer toxicity requirements.

- LAST-A-FOAM® FR-6700 Aerospace-grade Series
Flame-retardant rigid foam for aircraft composite core withstands process temperatures up to 250°F. Excellent for models and design prototypes, vacuum-form dies and mold patterns, and honeycomb edge closeout.

- LAST-A-FOAM® FR-4500 Tooling Board Series
Tough, grain-free machineable tooling boards for styling and design models, master models, masters for composite and layup tools, and for mold and foundry patterns.

- LAST-A-FOAM® FR-4700 HT Tooling Board Series
Supports prepreg composite layup tooling for high-temperature applications up to 400°F. Ideal for prototype machining, vacuum forming, pattern making and limited tooling runs.

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

Certifications:
- NQA-1, MIL-I-45208A
- Boeing Company D6-82479
- BMS 8-133 Core Materials
- BMS 8-350
- BMS 8-39
- ISO 9001:20015/AS9100D
- ITAR compliant
- Nadcap AC7130 Rev. C and AC7130/1 Rev. A