



Proven Excellence in Mission-Critical Materials Testing

General Plastics Testing Services Group

- Flammability Testing
- Physical Property Testing
- Developmental Testing



GENERALPLASTICS
MANUFACTURING COMPANY

WHERE GREAT IDEAS TAKE SHAPE



When certainty is imperative, entrust your critical tests to the experts.

General Plastics has been a leading innovator in the plastics industry since 1941. Our extensive background in the formulation, processing, testing and application of rigid and flexible polyurethane foam materials gives us unique insight into their distinct properties and versatility.

General Plastics' Testing Services Group offers a wide range of tests in our on-site testing laboratories, which include an FAA-approved flammability testing facility. All tests are conducted using calibrated equipment that is traceable to NIST.

What makes our testing services exceptionally valuable to our clients is our ability to provide any level of service – from R&D testing, to pre-testing of a customer's proposed design, to testing for final certification.

A solid track record of testing excellence

General Plastics' testing services are underpinned by decades of experience performing quality assurance to the most exacting standards for our own products. So it was logical that longtime clients, including dominant players in the aerospace, defense and nuclear containment industries, sought out our expertise to support their testing needs.

Over the years, consistent performance – coupled with our ability to navigate myriad test methods, specifications and customer requirements – has made General Plastics a recognized center of excellence for physical property, flammability and developmental testing.



Testing Capabilities

Our testing services span the full spectrum of quality assurance and testing functions, offering you a convenient single source for any or all to fit your particular requirements. Whether you seek to confirm physical property or performance characteristics for safety, strength, impact resistance or other qualities, look to a recognized leader. At General Plastics, we:

- Develop and draft test plans
- Build test samples to your design specifications or configuration
- Coordinate FAA conformity inspections
- Supply necessary FAA reports and documentation
- Provide pre-test services (prior to FAA witnessing)

Facilities and Equipment

Our quality assurance and test laboratories include the following facilities and equipment:

- FAA-approved testing facility
 - > Park oil burner
 - > Bunsen burner
 - > Heat Release
 - > Smoke Density
 - > Toxicity
- 10-meter guided-wire drop tower
- Computer-controlled universal test machines
- Coordinate Measuring Machine (CMM)
- ROMER arm (portable CMM)
- Optical Comparator
- Hydrostatic test equipment
- Thermomechanical Analyzer (TMA)
- Differential Scanning Calorimeter (DSC)

Test specimens are prepared for conditioning almost as soon as they are received and reports are frequently issued the same day tests are run.



The proof is in the process

Whether testing our own polyurethane foam products, advanced composite materials or sample designs assemblies provided by a client, reliable test results are essential. General Plastics consistently follows well-defined procedures that represent industry best practices and the ongoing refinement of internally developed techniques.

Speed and flexibility to your advantage

General Plastics offers the expertise and facilities to accommodate your particular requirements efficiently, conveniently and cost-effectively. We know that time is critical when bringing products or new designs to market. You can't wait for your testing provider to take months to complete testing and provide test results. Count on us for rapid turnaround once we receive your sample or design specifications, even if we construct your samples. And, test reports can frequently be issued the same day we run your test. What's more, local access to FAA Designated Engineering Representatives (DERs) simplifies flammability certification, saving you time and money.



Services Offered

Experts at General Plastics test materials for the following physical and performance properties:

Physical Property Testing

- Compression and Tensile Testing
- Flexural and Shear Testing
- Peel Strength
- Fastener Retention Strength
- 10-Meter Drop Test and Impact
- Thermal Conductivity
- Leachable Ions
- Glass Transition Temperature (TG)
- Heat Capacity
- Softening Point/ Melting Point
- Coefficient of Thermal Expansion (CTE)

Flammability Testing

- FAA Bunsen Burner
FAR 25.853 APP.F, Part I
- Seat Cushion Oil Burner Test
FAR 25.853 App.F, Part II
- Heat Release
FAR 25.853 App.F, Part IV
- Smoke Density
FAR 25.853 App.F, Part V
- Insulation Flame Propagation
FAR 25.856 App.F, Part VI
- Smoke Toxicity

Developmental Testing

- Accelerated Aging
- Hydrostatic Pressure Testing
- Energy Absorption
- Fire Safety

FAA and Industry Certifications

Certifications

General Plastics' extensive quality assurance program satisfies the demanding requirements of the aerospace industry, the Nuclear Regulatory Commission and the U.S. Department of Defense. General Plastics is certified to ISO 9001:2008/AS9100C. The company meets such exacting quality systems as:

- NQA-1
- MIL-I-45208A
- Boeing Company D6-82479

FAA-Approved Flammability Testing Facilities

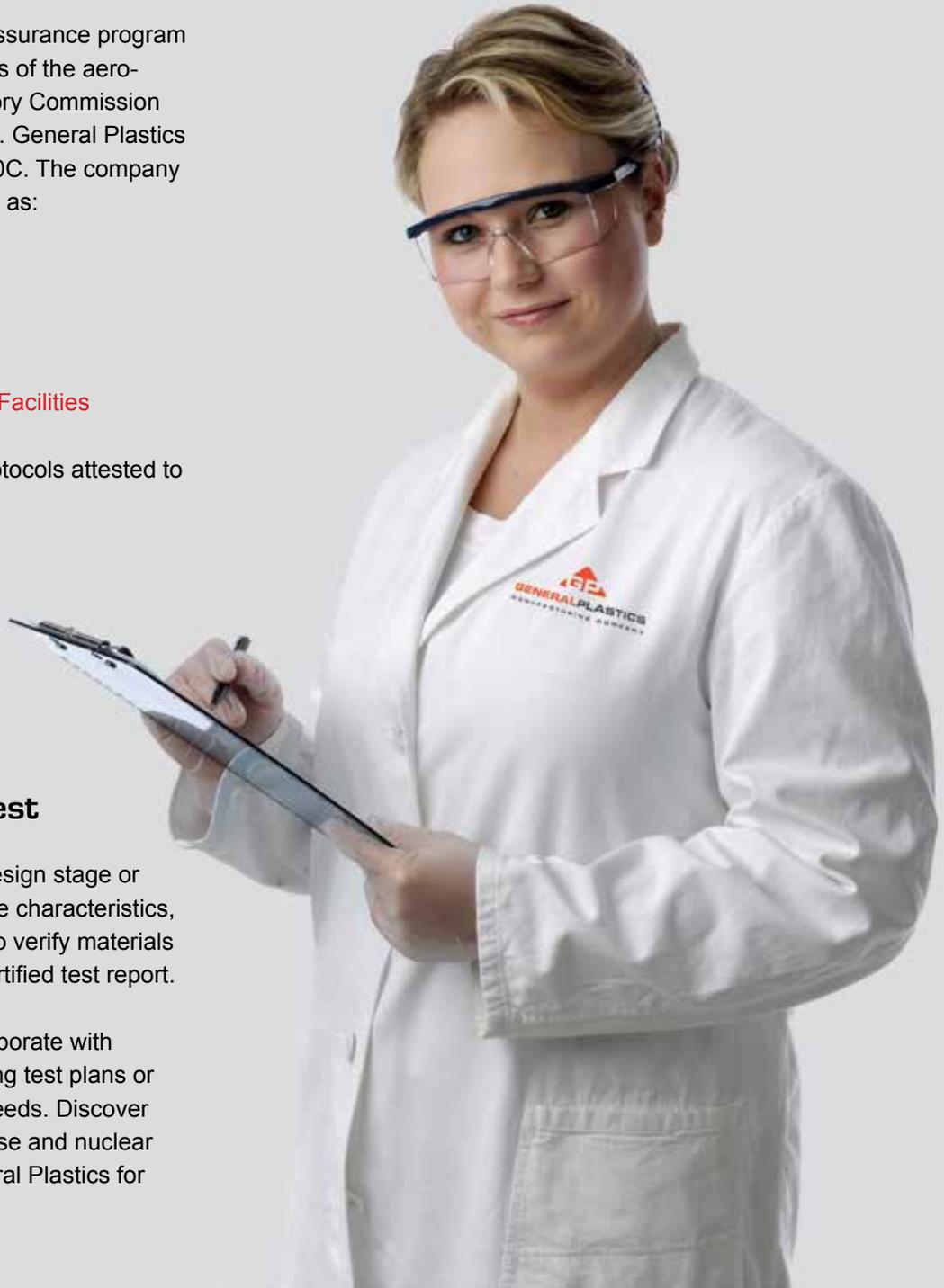
Validation of our flammability test protocols attested to the quality of the following:

- Setup procedures
- Specimen preparation
- Equipment calibration
- Performance of sample burn
- Collection of data
- Reporting of results

Put our services to the test

Whether you have a project in the design stage or need to confirm material performance characteristics, General Plastics is ideally qualified to verify materials against requirements and issue a certified test report.

We welcome the opportunity to collaborate with you and your engineers on developing test plans or samples tailored to your particular needs. Discover why leaders in the aerospace, defense and nuclear containment industries rely on General Plastics for mission-critical testing.



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Where Great Ideas Take Shape

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