



# Plastic Innovations

## *for Defense and Aerospace*

### Our Vision

RTP Company will use our sixty plus years of **independence** and **technology** in thermosets and engineering thermoplastics to be a materials leader in the defense and aerospace industries. We will accomplish this by forming strategic relationships with defense and aerospace OEMs, processors, and engineering materials suppliers worldwide. We will address these industries long (and short) term initiatives using RTP Company's engineering resources and materials technologies.

### RTP Company Technologies

#### *Long Fiber Compounds*

- Replace metal and consolidate parts using strong, lightweight materials
- Increased impact strength and flexural modulus compared to other plastics
- Superior stiffness, toughness, dimensional stability, creep and fatigue performance over short fiber reinforced thermoplastics

#### *Density Reduction Technology*

- Glass bubble compounds reduce weight while maintaining good surface appearance
- Foaming concentrates allow weight reductions of up to 20%

#### *EMI/RFI Shielding*

- Inherent EMI shielding technology
- Eliminates need for expensive secondary coatings
- Helps minimize weight
- Allows complex contours, part consolidation, and fastening options

#### *High Gravity Compounds*

- Custom formulated with densities of 2.0 to 11.0 g/cm<sup>3</sup>
- Environmentally friendly alternative to lead
- Perceived value of metal without machining
- Corrosion resistant
- Extremely tight density control





**Defense & Aerospace Division**

### **RTP Company**

580 E. Front Street  
Winona, MN 55987  
Tel: (800) 433-4787  
(507) 454-6900

### **Manufacturing Facilities:**

Winona, MN  
Sauk Rapids, MN  
South Boston, VA  
Fort Worth, TX  
Indianapolis, IN  
Monterrey, Mexico  
Beaune, France  
Ladenburg, Germany  
Singapore  
Suzhou, China  
Shenzhen, China



**FAR Burn Testing**

**EU Directives**

**RoHs Compliant**

### **Industry Initiatives (Aerospace)**

- Weight-Out
- Metal-to-Plastic Conversion
- High Modulus/Shear Strength Materials
- Custom Colored, High Temperature, OSU Materials (FAR 25.853)
- Lightning Strike
- ECO/Green Initiatives/Zero-Landfill

### **Applications (Aerospace)**

- Interior Components (Seating, Air Handling, Brackets, Fasteners)
- Exterior Components (Doorframes, Covers, Access Panels)
- Engine Components (Nacelles)

### **Industry Initiatives (Defense)**

- Weight-Out
- Metal-to-Plastic Conversion & Part Consolidation
- ECO/Green Initiatives/Lead Replacement

### **Applications (Defense)**

- Mil-Spec Lightweight Fasteners
- Radomes
- UAV/RPA/UCAV
- Electronic Housings
- Training Targets
- Gun Stocks
- Munitions

### **RTP Company R&D Capabilities**

- 30+ Development Engineers located around the world
- Wide range of technical backgrounds including four Ph.D's
- Easily accessible to the customer and quick response time
- Dedicated R&D facility allows quick scale-up from research to production

### **RTP Company CAE Capabilities**

- Extensive CAE capabilities including Moldflow® Plastics Insight & NEiNASTRAN®
- Over 50 years of combined technical experience
- Extensive understanding of how fiber orientation affects molding and mechanical performance
- Ability to provide data to customers for Moldflow or Structural analysis

### **Why RTP Company**

RTP Company's Defense and Aerospace Division is the only independent materials company with focus on new and unique materials and process solutions for defense and aerospace industries.



RTP Company • 580 East Front Street • Winona, Minnesota 55987  
[www.rtpcompany.com](http://www.rtpcompany.com)