

High Performance Polymers for the Defence Industry

BIEGLO GmbH offers a specialized portfolio of high-performance polymers tailored to meet the demanding needs of the defense sector. Whether it's weight reduction, thermal stability, or superior mechanical properties, our materials enable cutting-edge performance and durability under extreme conditions.

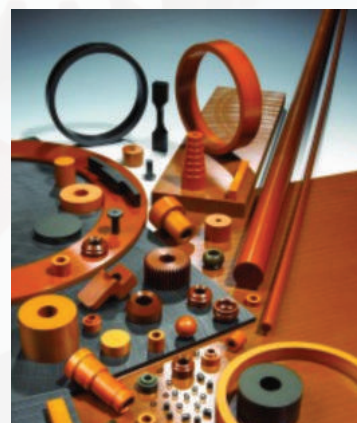


PEEK (polyether ether ketone) is a high-performance, semi-crystalline thermoplastic known for its outstanding mechanical, thermal, and chemical resistance properties. It is the material of choice when replacing metal, especially steel, with a lightweight, durable polymer solution.



Meldin 7000-Series Thermosetting Polyimide

High temperature, wear resistant polymer providing structural integrity, electrical insulation and dimensional stability in harsh operating condition.



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Celazole® PBI



offers exceptional heat resistance (up to 427°C), chemical stability, and flame resistance - ideal for demanding aerospace applications. The U-60 grade is tailored for military uses like nose tips and ablative heat shields.

- Retains 100% tensile strength after 30 days in hydraulic fluid at 93°C
- Metal-replacing polymer reduces weight and fuel consumption
- Engineered for extreme high-temperature aerospace use



Polycast® acrylic sheets

offer outstanding optical clarity, durability, and abrasion resistance - trusted in both military and general aviation. They're used in cockpit windows, windshields, and even bullet-resistant glazing for helicopters and armored vehicles. Spartech is one of the largest sheet extruders in the USA (12 plants).

- Applications include aircraft windows, panels and periscopes
- Special multilayer sheets for combat and submarine use
- Complies with strict U.S. defense standards; available in various sizes and colors



Royalite® sheets



Lightweight flame retardant thermoplastics are designed for high performance low volume applications such as special structural panels in vehicles. They meet strict requirements for fire smoke interiors protective gear and offer design flexibility through thermoforming.

- Certified to FAR, ASTM-E84, and MBSS302 standards
- Customizable in color, texture, and soft-touch finishes
- Global supply network ensures consistent quality and availability

