



LIFE SCIENCES

Life sciences applications demand durability, reliability, regulatory compliance, traceability from raw materials and design flexibility. What's the Rx for life sciences' needs? Performance plastics, of course!

APPLICATIONS

- Tanks (water, chemical, fuel)
- Laboratory equipment — tubing, seals, hoses, optics, fluid handling
- Pharmaceutical — tablet production, packaging
- Dental — instruments, grips, drilling/suction equipment, polishing equipment
- Medical — instruments, syringes, catheters
- Prosthetic/orthopedic appliances
- Surgical applications — minimally invasive equipment, surgical trays/grips
- Diagnostic equipment — MRI, CAT, X-ray machines, ultrasound/radiation equipment
- Safety equipment
- Corrosion-resistant equipment

ADVANTAGES MAY INCLUDE

- Transparency to X-rays
- Traceable from raw material to finished product
- Stable under most sterilization techniques
- Withstands a wide temperature range
- Dimensionally stable
- Resistant to corrosion and radiation
- Biocompatibility per ISO 10993-5, FDA compliant
- High impact strength
- Easy to machine
- Lightweight
- Availability in numerous colors for color-coding
- Wears well, even without lubrication
- Quieter than metal
- Comfortable feel (instrument handles are softer, warmer to the touch than metals)

MATERIALS

- Acetal Polyoxymethylene (POM)
- Acrylonitrile-Butadiene-Styrene (ABS)
- Acrylic (PMMA)
- Polyetheretherketone (PEEK)
- Polyetherimide (PEI)
- Polyethylene (PE)
- Polymethyl Pentene (PMP)
- Polysulfone (PSU)
- Polyphenylsulfone (PPSU)
- Polycarbonate (PC)
- Polypropylene (PP)
- Polyester Terephthalate Glycol Modified (PET-G)
- (PETG Copolymer)
- Polyvinyl Chloride (PVC)
- PVC/Acrylic Alloy Sheet
- Styrene Acrylonitrile Copolymer (SAN)
- Thermoplastic Elastomer (TPE)
- Ultra-High Molecular Weight Polyethylene (UHMW-PE)
- High-Pressure Laminates (HPL)
- Thermoplastic Composites (phenolics)



DID YOU KNOW?

Describing the surgery to implant the first artificial human heart, surgeon William Devries, said the new heart snapped into place “just like closing Tupperware.”