



# Medical

Plastics are facilitating a new frontier of more types of outpatient treatments, less invasive procedures and longer lasting materials. Plus, antimicrobial plastics cut down on infections. If you're looking for a healthier cost-effective alternative for medical materials, check out plastics!

## Applications

- Surgical instrument handles/grips
- Dental instrument handles/grips
- Orthopedic implants
- Pacemaker leads
- Endoscopic housing/eyepieces
- Sterilization trays/caddies
- X-ray and MRI parts
- Dialysis machines housings
- Respiratory units
- Pharmaceutical production/packaging
- Fluid distribution-valve housings/nozzles
- IV and infusion devices
- Diagnostic systems
- Feeding tubes
- Catheters



## Advantages May Include

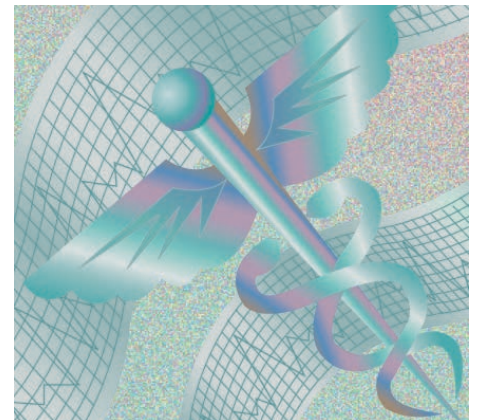
- Low manufacturing costs
- Low friction and wear
- Lightweight
- Resistant to high temperature, impact, chemicals
- Color coding options
- Easy to create ergonomic designs
- Maintains physical properties under thermal, chemical or electrical stress
- Good strength, toughness and hardness
- Can handle repeated sterilization
- Antimicrobial options
- Excellent wear properties
- Low-friction performance
- High purity
- Meets health regulations
- Meets precise dimensions
- Abrasion and shatter resistant
- Excellent thermal and oxidative stability

## Materials

- Acetal Copolymer (POM)
- Cyclic Olefin Copolymer (COC)
- Ethylene-Vinyl Acetate (EVA)
- Liquid Crystal Polymer (LCP)
- Polycarbonate (PC)
- Polyetheretherketone (PEEK)
- Polyethylene (PE)
- Polyetherimide (PEI)
- Polymethyl Pentene (PMP)
- Polyphenylene Oxide (PPO)
- Polyphenylene Sulfide (PPS)
- Polyphenylsulfone (PPSU)
- Polypropylene (PP)
- Polysulfone (PSU)
- Polyvinyl Chloride (PVC)
- PVC/Acrylic Alloy Sheet
- Silicone (SI)
- Styrene Acrylonitrile Copolymer (SAN)
- Styrene Maleic Anhydride-Polycarbonate (SMA-PC)
- Thermoplastic Elastomer (TPE)
- Thermoplastic Polyester (PBT)
- Thermoset composites (phenolics)
- Ultra-High Molecular Weight Polyethylene (UHMW-PE)

## Did you know?

In the high performance medical device market, the goal is to save thousands or tens of thousands of dollars per patient treated, not a few cents per device manufactured.



## Environmental and Safety

Considering the total carbon footprint, including costs of raw materials, manufacture, transport, fabricate, install, maintain, plastics compare favorably with more traditional materials. Also, plastics are safer to handle and install. When you consider that most plastics are readily recyclable, they can become the most environmentally responsible and safest choice for many demanding medical applications.

