

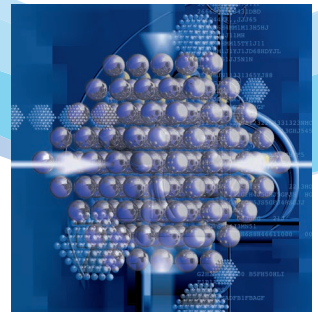
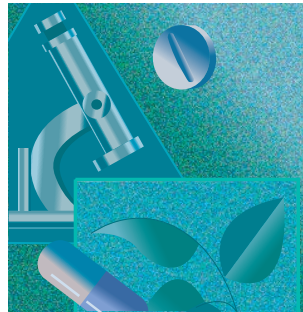


Pharmaceutical

Plastics are booming in the pharmaceutical industry because of their durability, ability to be sterilized, easy machinability to exacting specifications and cost effectiveness.

Applications

- Pharmaceutical pill and tablet production
- Intravenous and infusion devices, such as insulin pens and inhalers
- Blister packaging
- Pharmaceutical pouches for dose packaging of powder and topical medicines
- Strip packs for sample-size oral drug applications
- Medication tubes
- Parenteral packages
- Prefillable dose-measured syringes
- Tamper-evident and child-proof closures
- Droppers
- Measuring caps and spoons
- Bottles for: ophthalmic use, syrup, tablets, drops
- Drinkable single dose systems
- Vials
- Ampules
- Syringes
- Intravenous containers



- Cost effective
- Nonflammable
- Delivers critical and emergency medication quickly
- Antimicrobial options prevent infections
- Versatile; easily machined to precise specifications

- Thermoplastic Polyester (PBT)
- Thermoplastic Elastomer (TPE)
- Ultra-High Molecular Weight Polyethylene (UHMW-PE)

Did you know?

Plastics are the leading materials used in pharmaceutical packaging based on the breadth of applications for which they are suitable, their cost effectiveness and their favorable barrier and aesthetic properties.

Advantages May Include

- Can be sanitized using hot or cold water combined with detergents and other harsh chemical cleaners
- Easily fit into self-lubricating devices
- Lightweight
- Complies with North American and European regulations
- Materials meet highest USP or FDA standards
- Dimensional precision
- Chemical stability
- Mechanical and temperature resistant
- Machines well for design functionality and ergonomics

Materials

- Acetal (POM)
- Acrylic (PMMA)
- Acrylonitrile-Butadiene-Styrene (ABS)
- Ethylene-Chlorotrifluoroethylene (ECTFE)
- High-Density Polyethylene (HDPE)
- Nylon/Cast Nylon (PA)
- Polycarbonate (PC)
- Polyester Terephthalate Glycol Modified (PETG)
- Polyetherimide (PEI)
- Polyethersulfone (PES)
- Polyethylene (PE)
- Polyethylene Terephthalate (PET)
- Polyphenylene Sulfide (PPS)
- Polypropylene (PP)
- Polystyrene (PS)
- Polyvinyl Chloride (PVC)
- Polyvinylidene Fluoride (PVDF)



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 pharmaceutical applications.

