

# Qutoplex®

## Infoplex



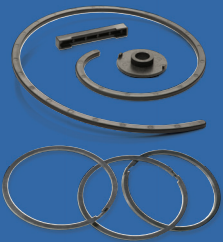
**QUTOPLEX® - High Performance Plastic Materials.** We produce high quality solutions from high performance materials. Few companies can offer the range of high performance / high temperature plastics found at Minnesota Rubber and Plastics. Our customers have come to rely on our ability to develop, design and produce their components and assemblies, cost-effectively, from a wide range of material offerings.

### Features & Benefits

- Conformability
- Chemical resistance
- ISO 10995
- Dimensional stability
- FDA compliant
- USP Class VI
- Flexibility
- Injection moldable
- Lightweight
- Metal replacement
- Noise reducing
- Self lubricating
- Temperature extremes
- Hydrolytic stability
- Sterilization resistance

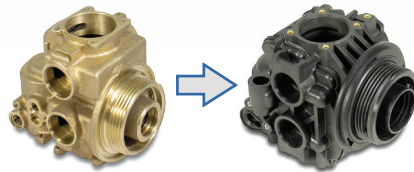
### Applications

- Bearings
- Bushings
- Retainers
- Thrust washers
- Rotary seal rings
- Gears
- Poppets
- Valves
- Pumps
- Compressors
- Fuel systems
- Transmissions
- Medical instruments
- Plumbing fixtures
- Potable water
- Filtration equipment



### High Performance Thermoplastics – Qutoplex®

Polyether Ether Ketone – PEEK  
Polysulfone – PSU  
Polythalamide – PPA



Metal to Qutoplex® Conversions  
Using Our Design Expertise

Polyphenylsulfone – PPSU  
Thermoplastic Polyimides – TPI\*  
Polyphenylene Sulfide - PPS



Qutoplex® Assemblies

### Material Data @ Room Temperature

#### Comparative Strengths & Weaknesses

	Mechanical Properties	Chemical	Steam	Radiation	Wear	UV	Colorability
TPI*	Excellent	Very Good	Fair	Excellent	Excellent	Good	Poor
PEEK	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good
PPS	Very Good	Excellent	Excellent	Excellent	Good	Fair	Fair
PPA	Very Good	Excellent	fair	Excellent	Good	Fair	Good
PPSU	Very Good	Very Good	Excellent	Excellent	Fair	Fair	Excellent
PSU	Very Good	Good	Good	Excellent	Fair	Fair	Excellent

#### Temperature Comparison

Polymer	Continuous Use Temperature F (C)	Glass Transition Temperature F (C)	Heat Deflection Temperature at 264 psi (1.80 MPa) F (C)
TPI*	428 (220)	536 (280)	539 (282)
PEEK	464 (240)	298 (148)	599 (315)
PPS	392 (200)	194 (90)	509 (265)
PPA	266 (130)	257 (125)	536 (280)
PPSU	320 (160)	428 (220)	410 (210)
PSU	284 (140)	365 (185)	358 (181)

All thermal properties are for 30% glass filled product.

All materials are available in multiple fill levels.

All natural colors, unpigmented, please let us know if a specific color is needed.

\*This includes PolyAmide-Imide – PAI. Minnesota Rubber and Plastics is a certified molder of Torlon® PAI.

All facilities ISO 9000:2008 and ISO 14001:2004 certified.