PP

Polyproplene has similar properties to polyethylene but is harder and more heat resistant.

Mechanical properties

Ultimate tensile strength	23 - 33 MPa
Yield strength	30 - 32 MPa
Young's modulus (modulus of elasticity)	0.9 - 1.6 GPa
Elongation at break	8 - 12 %
Hardness	65 - 102 HRR

Physical properties

UV resistance	Poor

Thermal properties

Maximum service temperature	80 - 130 °C
Thermal expansion coefficent	6 - 17 10^-6/ºC
Thermal conductivity	0.22 - 0.27 W/(m·°C)

Electrical properties

ESD Safety	No

Common applications

Packaging	
Consumer products	
Medical applications	

Polypropylene CNC Machining Applications & Parts

Polypropylene offers excellent chemical resistance, low moisture absorption, and good fatigue

resistance, making it a reliable and economical choice for living hinges, fluid systems, and corrosion-resistant parts.

Typical Parts We Machine from PP:

- **Chemical Resistant Parts:** Laboratory Equipment, Tank Liners, Chemical Pumps
- **Living Hinges & Packaging:** Custom Hinges, Container Latches, Prototype Closures
- **General Industrial:** Gears, Spacers, Washers, Electrical Insulators

Our Machining Advantage:

We carefully control heat and tool geometry to prevent the warping and stringiness associated with machining PP, resulting in clean, functional, and dimensionally stable components.

Get an Instant Quote for your custom Polypropylene parts today.