

Engineered Plastics Prototyping and Fabrication - Quick Reference Guide



Plastic Type	Properties	Nominal Operating Temperature
Acrylic	High impact resistance; lightweight; good chemical resistance; excellent weather-ability.	-20°F to 165°F
PTFE (Polytetrafluorethylene)	Excellent chemical, mechanical and thermal properties; weather resistant; low coefficient of friction	-250°F TO 500°F
Nylon	Lightweight; high strength-to-weight ratio; abrasion, corrosion and chemically resistant	-40°F to 180°F
Polyimide	Excellent resistance to high temperature; good chemical resistance; excellent electrical insulation	-450°F to 500°F
Polycarbonate	High impact strength; high dielectric strength; weather resistant; good chemical resistance	-40°F to 260°F
Polyester	Flexible; inert to water; unaffected by oil, grease and aromatics fuels; excellent dielectric	-60°F to 300°F
Polyethylene (high density)	Excellent corrosion, abrasion, chemical and water resistance; high tensile strength	-50°F to 180°F
Polypropylene	Excellent forming characteristics; low moisture absorption; resistant to organic solvents	68°F to 180°F
Polyvinyl Chloride (PVC)	Chemically inert; water corrosion and weather resistant; high strength-to-weight ratio	20°F to 140°F

Note: Chart is for quick reference only, not for specification writing. Always check data sheets for values. Visit: LGStechnologies.com to learn more.