



PLASTIC MATERIALS GUIDE

HIGH STRENGTH, TEMPERATURE AND COST

<ul style="list-style-type: none"> • Best Physical Properties Above 400°F (204°C) • Best Temperature Resistance 	<p style="text-align: center;">PI PAI PBI</p> <p style="text-align: center;">\$\$\$\$ IMIDIZED ~500°F (~260°C)</p>	<ul style="list-style-type: none"> • High Temperature, High Load Bearing and Wear Capabilities • Good Chemical Resistance • Maintains Strength and Stiffness 		
<ul style="list-style-type: none"> • High Service Temperatures • High Strength • Hot Water and Steam Resistant • Thermoformability • Structural 	<table border="1" style="width: 100%;"> <tr> <td style="text-align: center;"> RADEL® R ULTEM® POLYSULFONE PPS </td> <td style="text-align: center;"> PEEK® PPS PTFE PDVF PCTFE ECTFE PFA </td> </tr> </table> <p style="text-align: center;">\$\$\$ HIGH PERFORMANCE ~300°F (~149°C)</p>	RADEL® R ULTEM® POLYSULFONE PPS	PEEK® PPS PTFE PDVF PCTFE ECTFE PFA	<ul style="list-style-type: none"> • High Service Temperatures • Excellent Chemical Resistance • High Purity
RADEL® R ULTEM® POLYSULFONE PPS	PEEK® PPS PTFE PDVF PCTFE ECTFE PFA			
<ul style="list-style-type: none"> • General Purpose Structural Parts • Moderate Strength • Moderate Temperature • Good Dimensional Stability • Good Izod Impact • Easily Fabricated 	<table border="1" style="width: 100%;"> <tr> <td style="text-align: center;"> POLYCARBONATE NORYL® PPO URETHANE </td> <td style="text-align: center;"> PET PBT NYLON ACETAL UHMW-PE </td> </tr> </table> <p style="text-align: center;">\$\$ ENGINEERING ~200° F (~93° C)</p>	POLYCARBONATE NORYL® PPO URETHANE	PET PBT NYLON ACETAL UHMW-PE	<ul style="list-style-type: none"> • General Purpose Bearing and Wear or Structural Parts • Moderate Strength and Stiffness • Good Chemical Resistance • Moderate Temperature
POLYCARBONATE NORYL® PPO URETHANE	PET PBT NYLON ACETAL UHMW-PE			
<ul style="list-style-type: none"> • Low Temperatures • Low Strength • Good Bondability • Good Machineability 	<table border="1" style="width: 100%;"> <tr> <td style="text-align: center;"> POLYSTYRENE ACRYLIC ABS PETG PVC </td> <td style="text-align: center;"> POLYPROPYLENE POLYETHYLENE (HDPE, LDPE) </td> </tr> </table> <p style="text-align: center;">\$ COMMODITY ~200° F (~93° C)</p>	POLYSTYRENE ACRYLIC ABS PETG PVC	POLYPROPYLENE POLYETHYLENE (HDPE, LDPE)	<ul style="list-style-type: none"> • Low Temperatures • Low Strength • Good Chemical Resistance • Low Moisture Absorption • Bonds Poorly • Machines Poorly
POLYSTYRENE ACRYLIC ABS PETG PVC	POLYPROPYLENE POLYETHYLENE (HDPE, LDPE)			

Amorphous Crystalline

 Primary Materials	 Legacy Materials
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