

IMIDE MATERIALS					
Key Characteristics: Very High Cost Per Pound Excellent Properties Above 400°F Excellent Electrical Properties Excellent Dimensional Stability Low Coefficient of Friction			Materials: PI PAI PBI		
AMORPHOUS PLASTICS	AMORPHOUS HIGH PERFORMANCE PLASTICS		SEMI-CRYSTALLINE HIGH PERFORMACE PLASTICS		SEMI-CRYSTALLINE PLASTICS
	Key Characteristics High Cost High Temperature High Strength & Good Stiffness Good Chemical Resistance Transparency Hot Water & Steam Resistance	Materials: Polysulfone Polyetherimide Polyethersulfone Polyarylsulfone	Key Characteristics: High Cost High Temperature High Strength Good Electrical Properties Outstanding Chemical Resistance Low Coefficient of Friction Good Toughness	Materials: PVDF PTFE ECTFE FEP PFA PPS PEEK	
	AMORPHOUS ENGINEERING PLASTICS		SEMI-CRYSTALLINE ENGINEERING PLASTICS		
	Key Characteristics: Moderate Cost Moderate Temperature Resistance Moderate Strength Good Impact Resistance Translucency Good Dimensional Stability Good Optical Qualities	Materials: Polycarbonate Modified PPO Modified PPE Thermoplastic Urethane	Key Characteristics: Moderate Cost Moderate Temperature Resistance Moderate Strength Good Chemical Resistance Good Bearing and Wear Properties Low Coefficient of Friction Difficult to Bond	Materials: Nylon Acetal PET PBT UHMW-PE	
	AMORPHOUS COMMODITY PLASTICS		SEMI-CRYSTALLINE COMMODITY PLASTICS		
	Key Characteristics: Low Cost Low Temperature Resistance] Low Strength Good Dimensional Stability Bond Well Typically Transparent	Materials: Acrylic Polystyrene ABS PVC PETG CAB	Key Characteristics: Low Cost Low Temperature Resistance Low Strength Excellent Chemical Resistance Low Coefficient of Friction Near Zero Moisture Absorption Very Good Electrical Properties Good Toughness	Materials: Polyethylene Polypropylene Polymetnylpentene(TPX)	
AMORPHOUS PLASTICS KEY CHARACTERISTICS: Soften Over a Broad Range Of Temperatures Easy to Thermoform Tend to Be Transparent Bond Well Using Adhesives and Solvents Prone To Stress Cracking Poor Fatigue Resistance Stuctural Applications Only (Not for Bearing & Wear)			SEMI-CRYSTALLINE PLASTICS KEY CHARACTERISTICS: Sharp Melting Point Difficult to Thermoform Tend to Be Opaque Difficult To Bond Using Adhesives and Solvents Good Resistance To Stress Cracking Good Fatigue Resistance Good For Bearing and Wear, As Well As Structural Applications		