


IMIDE PLASTICS	Key Characteristics:	Includes	 Tri-State Plastics, Inc. 4306 Boron Drive Latonia, KY 41015 (659) 655-8200 www.tristateplastics.com
	High Cost Per Pound Excellent Properties Above 400° F Excellent Electrical Properties	Excellent Dimensional Stability Low Coefficient of Friction	

AMORPHOUS PLASTICS	AMORPHOUS HIGH PERFORMANCE PLASTICS :		SEMI-CRYSTALLINE HIGH PERFORMANCE PLASTICS :		SEMI-CRYSTALLINE PLASTICS
	Key Characteristics:	Includes	Key Characteristics:	Includes	
	High Cost High Temperature High Strength & Good Stiffness Good Chemical Resistance Transparency Hot Water & Steam Resistance	Polysulfone Polyetherimide Polyethersulfone Polyarylsulfone	High Cost High Temperature High Strength Good Electrical Properties Outstanding Chemical Resistance Low Coefficient of Friction Good Toughness	PVDF PTFE ECTFE FEP PFA PPS PEEK	
	AMORPHOUS ENGINEERING PLASTICS :		SEMI-CRYSTALLINE ENGINEERING PLASTICS :		
	Key Characteristics:	Includes	Key Characteristics:	Includes	
	Moderate Cost Moderate Temperature Resistance Moderate Strength Good Impact Resistance Translucency Good Dimensional Stability Good Optical Qualities	Polycarbonate Modified PPO Modified PPE Thermoplastic Urethane	Moderate Cost Moderate Temperature Resistance Moderate Strength Good Chemical Resistance Good Bearing & Wear Properties Low Coefficient of Friction Difficult To Bond	Nylon Acetal PET PBT UHMW-PE	
	AMORPHOUS COMMODITY PLASTICS :		SEMI-CRYSTALLINE COMMODITY PLASTICS :		
Key Characteristics:	Includes	Key Characteristics:	Includes		
Low Cost Low Temperature Resistance Low Strength Good Dimensional Stability Bonds Well Typically Transparent	Acrylic Polystyrene ABS PVC PETG CAB	Low Cost Low Temperature Resistance Low Strength Excellent Chemical Resistance Low Coefficient of Friction Near Zero Moisture Absorption Good Electrical Properties Good Toughness	Polyethylene Polypropylene Polymethylpentene (TPX)		
AMORPHOUS PLASTICS—GENERAL KEY CHARACTERISTICS:		SEMI-CRYSTALLINE PLASTICS—GENERAL 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 Structural Applications Only (Not for Bearing & Wear Surfaces)	↑	Sharp Melting Point Difficult To Thermoform Tend To Be Transparent Difficult To Bond Using Adhesives and Solvents Good Resistance to Stress Cracking Good Fatigue Resistance Good for Bearing & Wear as well as Structural Applications		