

HIGH PERFORMANCE MATERIALS

		PROPERTIES	TYPICAL APPLICATIONS
SEMITRON:	Static Dissipative Products Sheet: Thickness: 1/4" — 3" Size: 24" x 48" Rod: Diameter: 1/4" — 3"	ESD 225 ACETAL (TAN) • Surface resistivity 10 ¹⁰ -10 ¹² Ω/SQ. • Good wear resistance. • Thermal performance to 225°F (107°C). ESD 410C PEI (BLACK) • Surface resistivity 10 ⁴ -10 ⁶ Ω/SQ. • High strength and stiffness • Thermal performance to 410°F (210°C) ESD 500HR PTFE (WHITE) • Surface resistivity 10 ¹⁰ -10 ¹² Ω/SQ. • Broad chemical resistance • Thermal performance to 500°F (260°C)	<ul style="list-style-type: none"> • Fixturing used in manufacturing of hard drives. • Handling in-process silicon wafers. • Handling integrated circuits through the test handler environment. • Where controlled bleed off of static charges is critical.
FLUOROSINT:	Mica filled TFE Sheet: Thickness: 1/4" — 3" Size: 12" x 12" Rod: Diameter: 1/2" — 8-3/4" Tubular Bar: Diameter: 1/2" I.D. — 26" O.D. Tape: Thickness: 0.010" — 0.031" Width: 1/2" — 3-1/2"	<ul style="list-style-type: none"> • Similar to PTFE plus; • Very low coefficient of thermal expansion. • Better wear resistance. • Resistance to deformation under load. • FDA compliant (F207 grade). 	<ul style="list-style-type: none"> • Valve seats. • Bearings, Bushings. • Wear parts. • Seal rings. • Packings, Gaskets. • Washers. • Insulator wear parts.
VESPEL:	Polyimide Sheet: Thickness: 1/16" — 2" Size: 10" x 10", 10" x 5", 5" x 5" Rod: Diameter: 1/4" — 3-1/4" Tubular Bar: Diameter: 1" I.D. — 7" O.D.	<ul style="list-style-type: none"> • Can be used at temperatures from cryogenic to 288°C. • Excellent resistance to radiation with no retention. • Low creep. • Low coefficient of thermal expansion. • Excellent resistance to dilute acids and solvents. • Attacked by basic solutions and subject to degradation in the presence of steam. • Low outgassing. 	<ul style="list-style-type: none"> • Electrical and thermal insulators. • Gaskets. • Valve seats. • Unlubricated bearings. • Thrust washers. • Components in vacuum or radioactive environments. • Wear strips. • Structural parts.
CELAZOLE:	Polybenzimidazole (PBI) Sheet: Thickness: 1/2" — 1-1/2" Size: 12" x 12", 12" x 24", 13.25" x 14.25" Rod: Diameter: 3/8" — 4-3/4" Tubular Bar: Diameter: 3/4" I.D. — 15" O.D. Disc: Diameter: 3-1/2" — 15"	<ul style="list-style-type: none"> • Highest mechanical properties of any plastic above 400°F (204°C). • Highest heat deflection temp. 800°F (427°C). • Short-term exposure potential to 1000°F (538°C). • Lowest coefficient of thermal expansion. • Highest compressive strength of all unfilled plastics. 	<ul style="list-style-type: none"> • High heat insulator bushings. • Electrical connectors. • Ball valve seats. • Clamp rings. • Vacuum cups, fingers and holders.
ULTEM:	Polyetherimide Sheet: Thickness: 1/32" — 3" Size: 48" x 96", 24" x 48" Rod: Diameter: 3/16" — 8"	<ul style="list-style-type: none"> • High heat resistance. • Exceptional fame retardance – UL 94-V-0 rated. • Low smoke. • High dielectric strength. • Low dissipation factor. • Stable dielectric constant. • Outstanding mechanical properties. • Broad chemical resistance. • Excellent machinability. • Transparent (Amber). 	<ul style="list-style-type: none"> • Aircraft components. • Electrical/electronic components. • Circuit boards. • Microwave applications. • Computer circuitry. • Automotive applications. • Pump and valve parts. • Medical devices and components.
PPS:	Polyphenylene Sulfide Sheet: Thickness: 1/4" — 2" Size: 24" x 48" Rod: Diameter: 3/8" — 3" Tubular Bar: Diameter: 1" I.D. — 40" O.D.	<ul style="list-style-type: none"> • High heat resistance. • Exceptional chemical resistance. • Superior dimensional stability. • Excellent electrical and mechanical properties. • Flame resistance. • High rigidity. 	<ul style="list-style-type: none"> • High Pressure Liquid Chromatography. • Chemical processing. • Automotive. • Electrical/electronic components. • Industrial parts. • Consumer goods. • Medical and diagnostic devices. • Replacing metal and steel in a variety of applications.