



# ULTEM™ 2300 PEI

## 30% Glass Fiber Reinforced

### DESCRIPTION

**Ultem™ 2300 PEI** is a polyetherimide possessing excellent strength, toughness, flame resistance, and dimensional stability due to glass fiber reinforcement.

- Versatile range of industry applications, such as: electronics, aerospace, energy, semiconductor, food equipment, etc.
- Broad chemical resistance & highest dielectric strength of any commercially available thermoplastic.
- Glass Transition ( $T_g$ ) of 217°C / 422°F.

### TYPICAL APPLICATIONS:

- Structural components
- Electrical insulators
- Semiconductor processing
- Medical devices

**Material Notes:** Made exclusively from SABIC Ultem™ 2300 PEI resin.

### EXTRUDED SHAPES PROPERTIES

PHYSICAL PROPERTIES	METRIC	IMPERIAL	METHODS
Specific Gravity	1.51 g/cc		ASTM D792
MECHANICAL PROPERTIES*			
Hardness, Rockwell M		114	ASTM D785
Tensile Strength, 23°C	117 MPa	17,000 PSI	ASTM D638
Elongation at Break, 0.05"/min	4%	4%	ASTM D638
Flexural Strength, 23°C	186 MPa	27,000 PSI	ASTM D790
Flexural Modulus, 23°C	5.9 GPa	850,000 PSI	ASTM D790
Compressive Strength, 23°C	221 MPa	32,000 PSI	ASTM D695
Izod Impact (notched)	25.8 J/m	1.0 ft*lbs/in	ASTM D256
ELECTRICAL PROPERTIES			
Dielectric Strength	780 V/mil	780 V/mil	ASTM D149
Surface Resistivity	$>10^{13} \Omega/\text{sq}$	$>10^{13} \Omega/\text{sq}$	ASTM D257
Dielectric Constant @ 1 MHz	3.70	3.70	ASTM D150
Dissipation Factor @ 1 MHz	0.0015	0.0015	ASTM D150
THERMAL PROPERTIES			
Glass Transition Temp./ $T_g$	217 °C	422 °F	ASTM D3418
Coefficient of Linear Thermal Expansion	20.0 ppm/°C	12.0 ppm/°F	ASTM E831
Thermal Conductivity, 23°C	0.23 W/m*K	1.56 Btu*in/hr*ft <sup>2</sup> *°F	ASTM C117

\*The mechanical properties of extruded shapes may differ from the values published by resin producers. Published resin data is always generated from test specimens injection molded under optimum conditions. Drake's extruded shape values are generated using specimens machined from actual shapes and may reflect surface imperfections from machining, enhanced crystallinity as a result of processing, and fiber alignment inherent in all reinforced plastic shapes, regardless of process. For additional information on the effects of fiber alignment, see Drake Fiber Orientation Diagram, available on the Resource page of our website.