



TYPICAL PROPERTIES of ULTEM® PEI POLYETHERIMIDE					
ASTM or UL test	Property	Ultem® 1000 unfilled	Ultem® 2100 10% glass	Ultem® 2200 20% glass	Ultem® 2300 30% glass
<b>PHYSICAL</b>					
D792	Density (lb/in <sup>3</sup> )	0.046	0.048	0.051	0.055
	(g/cm <sup>3</sup> )	1.28	1.34	1.42	1.51
D570	Water Absorption, 24 hrs (%)	0.25	0.21	0.19	0.18
D570	Water Absorption, Saturation (%)	1.25	1.20	1.10	0.90
<b>MECHANICAL</b>					
D638	Tensile Strength (psi)	16,500	16,800	16,900	17,000
D638	Tensile Modulus (psi)	500,000	650,000	700,000	800,000
D638	Tensile Elongation at Break (%)	80	6	3	3
D790	Flexural Strength (psi)	20,000	23,000	25,000	27,000
D790	Flexural Modulus (psi)	500,000	-	-	850,000
D695	Compressive Strength (psi)	22,000	24,000	28,000	32,000
D695	Compressive Modulus (psi)	480,000	-	-	625,000
D785	Hardness, Rockwell	M112 / R125	M114 / R127	M114 / R127	M114 / R127
D256	IZOD Notched Impact (ft-lb/in)	0.5	0.6	0.8	1.0
<b>THERMAL</b>					
D696	Coefficient of Linear Thermal Expansion (x 10 <sup>-5</sup> in./in./°F)	3.1	1.8	1.4	1.1
D648	Heat Deflection Temp (°F / °C) at 264 psi	400 / 204	405 / 207	408 / 208	410 / 210
D3418	Glass Transition Temp (°F / °C)	410 / 210	410 / 210	410 / 210	410 / 210
-	Max Operating Temp (°F / °C)	340 / 171	340 / 171	340 / 171	340 / 171
C177	Thermal Conductivity (BTU-in/ft <sup>2</sup> -hr-°F) (x 10 <sup>-4</sup> cal/cm-sec-°C)	0.85 / 2.93	1.22 / 4.20	1.43 / 4.93	1.56 / 5.37
UL94	Flammability Rating	V-0	V-0	V-0	V-0
<b>ELECTRICAL</b>					
D149	Dielectric Strength (V/mil) short time, 1/8" thick	830	-	-	770
D150	Dielectric Constant at 1 KHz	3.15	3.5	3.5	3.7
D150	Dissipation Factor at 1 KHz	0.0013	0.0014	0.0015	0.0015
EOS/ESD S11.11	Surface Resistivity (ohms/square)	> 10 <sup>13</sup>	> 10 <sup>13</sup>	> 10 <sup>13</sup>	> 10 <sup>13</sup>

Data provided is for reference purposes only. Additional testing may be required for design specifications or quality control. All values at 73°F unless otherwise stated.

