

Ultem® 1000 Resin

PROPERTY	NOMINAL VALUES	TEST METHOD
Physical		
Density – Specific Gravity	1.27	ASTM D792
Water Absorption – Equilibrium (23°C)	1.25 %	ASTM D570
Water Absorption (24 hrs)	0.25 %	ASTM D570
Mechanical		
Tensile Modulus (5 mm/min)	3580 MPa	ASTM D638
Tensile Stress @ Yield (Type 1, 5 mm/min)	110 MPa	ASTM D638
Tensile Strain @ Yield (Type I, 5 mm/min)	7 %	ASTM D638
Tensile Strain @ Break (Type I, 5 mm/min)	60 %	ASTM D638
Flexural Modulus (100 mm Span, 2.6 mm/min)	3510 MPa	ASTM D790
Flexural Stress @ Yield (100 mm Span, 2.6mm/min)	165 MPa	ASTM D790
Hardness, Rockwell M	109	ASTM D785
Thermal		
Vicat Softening Temp, Rate B/50	218 °C	ASTM D1525
HDT, Unannealed (0.45 MPa, 6.4 mm)	210 °C	ASTM D648
HDT, Unannealed (1.82 MPa, 6.4 mm)	201 °C	ASTM D648
Thermal Conductivity	0.22 W/m-°C	ASTM C177
Relative Temp Index, Elec	170 °C	UL 746B
Relative Temp Index, Mech w/impact	170 °C	UL 746B
Relative Temp Index, Mech w/o impact	170 °C	UL 746B
Electrical		
Volume Resistivity	1.E+17 Ohm-cm	ASTM D257
Dielectric Strength (in air, 1.6 mm) (in oil, 1.6 mm) (in oil, 3.2 mm)	32.7 kV/mm 27.9 kV/mm 19.6 kV/mm	ASTM D149
Relative Permittivity (100 Hz, 1 kHz)	3.15	ASTM D150
Dissipation Factor (100 Hz) (1 kHz) (2450 MHz)	0.0015 0.0012 0.0025	ASTM D150
Impact		
Notched Izod Impact (23 °C)	53 J/m	ASTM D256
Unnotched Izod Impact (23 °C)	1335 J/m	ASTM D4812

*Ultem is a registered trademark of General Electric

**Typical values only. Actual properties of individual batches will vary within specification limits.