

**Saint-Gobain Performance Plastics**  
**Polysulfone**

**POLYSULFONE**

**PHYSICAL PROPERTIES**

**UDEL P-1700**  
**AMOCO, INC.**

Specific Gravity	1.24
Refractive Index (nD)	1.63
Water Absorption (in 24 hrs, %)	0.3
Autoclavable (Yes, No)	Yes to 285°F
Approvals:	FDA 21 CFR 177.1655
3A, USDA	
Radiation Tolerance, Mrad	100

**MECHANICAL PROPERTIES**

Tensile Strength, kpsi (MPa)	10.2 (70.3)
Compressive Strength, kpsi (MPa)	1.5 (10.4)
Flexural Strength, kpsi (MPa)	15.4 (106.2)
Tensile Modulus, kpsi (MPa)	360 (2480)
Flexural Modulus, kpsi (MPa)	390 (2690)
Hardness: Rockwell R	120
Shore D	87
Elongation, % Yield (Ultimate)	(50 to 100)
IZOD Impact Strength:	
Notched, ft <sup>2</sup> lb/in (J/m)	1.3 (69)

**THERMAL PROPERTIES**

Melting Temperature, °F (°C)	650 (343)
Specific Heat, BTU/lb°F (J/kg°C)	0.24 (1004)
Thermal Conductivity:	
BTU <sup>2</sup> /in/hr/ft <sup>2</sup> /°F (W/m°C)	1.8 (0.26)
Coefficient of Thermal Expansion:	
in/in/°F x 10 <sup>-6</sup>	31
mm/mm/°C x 10 <sup>-6</sup>	56
Brittle Temperature, °F (°C)	-150 (-101)
Heat Deflection Temperature:	
264 psi, °F (°C)	345 (174)
66 psi, °F (°C)	358 (181)
UL-94 Flammability Class	V-0 to V-1
Oxygen Index (%)	30

**ELECTRICAL PROPERTIES**

Dielectric Strength, V/mil (kV/mm)	425 (17)
Electric Resistivity, Ohm/in (Ohm/cm) x 10 <sup>14</sup>	1270 (500)
Dielectric Constant:	
KHz	3.14
MHz	3.10
Dissipation Factor:	
KHz	0.0013
MHz	0.005