

**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 ² 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 ² /in/hr/ft ² /°F (W/m°C)	1.8 (0.26)
Coefficient of Thermal Expansion:	
in/in/°F x 10 ⁻⁶	31
mm/mm/°C x 10 ⁻⁶	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 ¹⁴	1270 (500)
Dielectric Constant:	
KHz	3.14
MHz	3.10
Dissipation Factor:	
KHz	0.0013
MHz	0.005