

POLYCARBONATE PGPC-1822 UR

Medium Viscosity, Bluish Polycarbonate
UV-Stability, Mold Release
Applications: Biocompatible Polycarbonate Appropriate for Medical Devices like Blood Oxygenator, Blood Reservoirs, Blood Filters and Surgical Instruments.

PROPERTIES	TYPICAL VALUES	UNIT	TEST METHODS
PHYSICAL			
Melt Flow Index (1.2 Kg,300 °C)	18.1 – 22	g/10 min	ASTM D1238
Melt volume Rate(1.2 Kg,300 °C)	16.4 – 20	Cm^3/10 min	ASTM D1238
Density (25 °C)	1.2	g/cm^2	ASTM D792
Mold Shrinkage	0.5 – 0.7	%	ASTM D955
MECHANICAL			
Tensile Strength at Yield	62 – 64	Mpa	ASTM D638
Tensile Elongation at Break	120 – 130	%	ASTM D638
Tensile Modulus	2800 – 3000	Mpa	ASTM D638
Izod Impact Strength (Notched, 23 °C)	70 – 76	Kj/m^2	ASTM D256
THERMAL			
Vicat Softening Temperature (50 N , 50C/h)	140 – 142	°C	ASTM D1525
Coefficient of Thermal Expansion	0.4 – 0.7	10^{-5}/K	ASTM D696
Burning Behavior (1.6mm)	V2	--	UL-94
OPTICAL			
Gloss	---	%	ASTM D523
Haze(Thickness 2mm)	≤ 0.6	%	ASTM D1003
Transmittance(Thickness 2mm)	≥ 90	%	ASTM D1003
Yellow Index	(-12) – (-8)		ASTM D1003
ELECTRICAL			
Dielectric Strength	≥ 18	Kv/mm	ASTM D149
Volume Resistivity	1E+14	Ohm-m	ASTM D257
Surface Resistivity	1E+16	ohm	ASTM D257
Dissipation Factor	90	1MHZ	ASTM D150