

ColorRx® PSU-1000RX

Americhem - Polysulfone

General Information
Product Description

PSU-1000RX is an injection molding grade of polysulfone (PSU) with high strength and excellent resistance to oxidation and hydrolysis. It is suitable for healthcare applications and sterilizable by EtO, steam, gamma and electron beam radiation.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Autoclave Sterilizable • Biocompatible • E-beam Sterilizable	• Ethylene Oxide Sterilizable • Excellent Colorability • Heat Sterilizable	• Radiation Sterilizable • Steam Sterilizable
Uses	• Engineering Parts • Medical/Healthcare Applications	• Metal Replacement • Surgical Instruments	
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.24		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	6.5 g/10 min		ASTM D1238
Molding Shrinkage - Flow (0.125 in)	7.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	360000	psi	ASTM D638
Tensile Strength ² (Yield)	10000	psi	ASTM D638
Tensile Elongation ² (Break)	50 to 100	%	ASTM D638
Flexural Modulus ²	390000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	1.3	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in)	345	°F	ASTM D648

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	275 to 325	°F
Drying Time	4.0 to 6.0	hr
Drying Time, Maximum	24	hr
Suggested Shot Size	50 to 75	%
Rear Temperature	600 to 625	°F
Middle Temperature	600 to 625	°F
Front Temperature	600 to 625	°F
Nozzle Temperature	600 to 625	°F
Processing (Melt) Temp	625 to 725	°F
Mold Temperature	250 to 325	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	1.0E-3 to 3.0E-3	in

