

ColorRx® PC-A2000RX

Americhem - Polycarbonate

General Information

Product Description

PC-A2000RX is a high flow injection molding grade of polycarbonate with good clarity and hydrolysis resistance. It is biocompatibility tested according to ISO 10993-5 and USP Class VI compliant. PC-A2000RX is recommended for healthcare and medical device applications, and is suitable for sterilization using EtO, steam at 121°C, and limited gamma 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	• Closures • Engineering Parts	• Housings • Industrial Parts	• Medical/Healthcare Applications • Surgical Instruments
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.20		ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	20	g/10 min	ASTM D1238
Molding Shrinkage - Flow (0.125 in)	5.0E-3 to 7.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.12	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield)	9050	psi	ASTM D638
Tensile Elongation ² (Yield)	6.0	%	ASTM D638
Tensile Elongation ² (Break)	130	%	ASTM D638
Flexural Modulus ²	334000	psi	ASTM D790
Flexural Strength ²	13000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	15	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed, 0.250 in)	262	°F	ASTM D648

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	3.0 to 4.0	hr
Drying Time, Maximum	48	hr
Suggested Shot Size	40 to 60	%
Rear Temperature	510 to 560	°F
Middle Temperature	530 to 580	°F
Front Temperature	550 to 600	°F
Nozzle Temperature	540 to 590	°F
Processing (Melt) Temp	540 to 600	°F
Mold Temperature	160 to 200	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	1.0E-3 to 3.0E-3	in

