

ColorRx® PC-1600GSRX

Americhem - Polycarbonate

General Information
Product Description

PC-1600GSRX is a high flow injection molding grade of gamma stabilized polycarbonate with good clarity and high heat resistance. It is suitable for healthcare applications and sterilizable by EtO, steam at 121°C, and gamma radiation. Demonstrates reduced color shift after multiple gamma radiation cycles as compared to non-stabilized PC.

General

Material Status	<ul style="list-style-type: none"> Commercial: Active 		
Availability	<ul style="list-style-type: none"> Africa & Middle East Asia Pacific 	<ul style="list-style-type: none"> Europe Latin America 	<ul style="list-style-type: none"> North America
Features	<ul style="list-style-type: none"> Autoclave Sterilizable Biocompatible E-beam Sterilizable 	<ul style="list-style-type: none"> Ethylene Oxide Sterilizable Excellent Colorability Heat Sterilizable 	<ul style="list-style-type: none"> Radiation (Gamma) Resistant Radiation Sterilizable Steam Sterilizable
Uses	<ul style="list-style-type: none"> Closures Engineering Parts 	<ul style="list-style-type: none"> Housings Industrial Parts 	<ul style="list-style-type: none"> Medical/Healthcare Applications Surgical Instruments
Forms	<ul style="list-style-type: none"> Pellets 		
Processing Method	<ul style="list-style-type: none"> 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)	18	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 (Break)	130	%	ASTM D638
Flexural Modulus ²	335000	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

