

InStruc® PCGF20MD

Americhem - Polycarbonate

General Information
Product Description

 20% GLASS FIBER REINFORCED, POLYCARBONATE
(MEDICALLY LOCKED FORMULA)

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Autoclave Sterilizable • E-beam Sterilizable • Ethylene Oxide Sterilizable • Filled	• Good Dimensional Stability • Heat Sterilizable • High Stiffness • High Strength	• Radiation Sterilizable • Steam Sterilizable
Uses	• Closures • Connectors • Electrical/Electronic Applications	• 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	1.33		ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.090	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	850000	psi	ASTM D638
Tensile Strength	15000	psi	ASTM D638
Tensile Elongation (Yield)	4.0 to 5.0	%	ASTM D638
Flexural Modulus	800000	psi	ASTM D790
Flexural Strength	25000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	2.5	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	18	ft·lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	285	°F	ASTM D648

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	3.0 to 4.0	hr
Processing (Melt) Temp	580 to 620	°F
Mold Temperature	180 to 240	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	1.0E-3 to 2.0E-3	in

