

InElec® PCCF30HFMRMD

Americhem - Polycarbonate

General Information

Product Description

30% CARBON FIBER REINFORCED, HIGH FLOW POLYCARBONATE (LOCKED MEDICAL FORMULATION)

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 30% Filler by Weight		
Additive	• Mold Release		
Features	• Autoclave Sterilizable • E-beam Sterilizable • Electrically Conductive • ESD Protection • Ethylene Oxide Sterilizable • Filled	• Good Dimensional Stability • Good Mold Release • Heat Sterilizable • High Flow • High Stiffness • High Strength	• Lubricated • Permanent Antistatic • 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

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.33		ASTM D792
Molding Shrinkage - Flow	5.0E-4 to 1.5E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.080	%	ASTM D570
Mechanical			
Tensile Modulus	2.80E+6	psi	ASTM D638
Tensile Strength	24000	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 3.0	%	ASTM D638
Flexural Modulus	2.30E+6	psi	ASTM D790
Flexural Strength	35000	psi	ASTM D790
Impact			
Notched Izod Impact (0.125 in)	2.2	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	13	ft·lb/in	ASTM D4812
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	300	°F	ASTM D648
Electrical			
Surface Resistivity	1.0E+2 to 1.0E+4	ohms	ASTM D257

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	250	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
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

