

InElec® PCCF20VHFMD

Americhem - Polycarbonate

General Information

Product Description

20% CARBON FIBER REINFORCED, VERY 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, 20% Filler by Weight		
Features	• Autoclave Sterilizable • E-beam Sterilizable • Electrically Conductive • ESD Protection • Ethylene Oxide Sterilizable	• Filled • Good Dimensional Stability • Heat Sterilizable • High Flow • High Stiffness	• High Strength • 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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.29		ASTM D792
Molding Shrinkage - Flow	5.0E-4 to 2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.10	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.95E+6	psi	ASTM D638
Tensile Strength	20500	psi	ASTM D638
Tensile Elongation (Yield)	2.0 to 3.0	%	ASTM D638
Flexural Modulus	1.65E+6	psi	ASTM D790
Flexural Strength	30000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.8	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	13	ft·lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	295	°F	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+5	ohms	ASTM D257

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.020	%
Processing (Melt) Temp	580 to 620	°F
Mold Temperature	200	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

