

InElec® PEICF20

Americhem - Polyetherimide

General Information

Product Description

20% CARBON FIBER REINFORCED POLYETHERIMIDE

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	• Electrically Conductive • ESD Protection • Filled • Good Dimensional Stability • High Stiffness • High Strength • Permanent Antistatic
Uses	• Aerospace Applications • Connectors • Consumer Applications • Electrical/Electronic Applications • Engineering Parts • Industrial Applications • Industrial Parts • Metal Replacement • Military/Defense Applications • Oil/Gas Applications • Outdoor Applications • Semiconductor Applications
Forms	• Pellets
Processing Method	• Injection Molding

 Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.35		ASTM D792
Specific Volume	20.5	in ³ /lb	
Molding Shrinkage - Flow	1.5E-3 to 2.5E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	28300	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 3.0	%	ASTM D638
Flexural Modulus	1.90E+6	psi	ASTM D790
Flexural Strength	39000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.1	ft-lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	10	ft-lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	415	°F	ASTM D648
CLTE - Flow	1.1E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+3 to 1.0E+5	ohms	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	300	°F
Drying Time	4.0	hr
Processing (Melt) Temp	680 to 715	°F
Mold Temperature	300	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	1.5E-3 to 3.0E-3	in

