

InElec® PEINCCF20HF

Americhem - Polyetherimide

General Information
Product Description

20% NICKEL COATED CARBON FIBER REINFORCED, HIGH FLOW POLYETHERIMIDE

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Nickel-Coated Carbon Fiber, 20% Filler by Weight		
Features	• Electrically Conductive • Electromagnetic Shielding (EMI) • ESD Protection	• Good Dimensional Stability • High Flow • High Stiffness	• High Strength • Permanent Antistatic • Radio Frequency Shielding (RFI)
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	1.43		ASTM D792
Molding Shrinkage - Flow	1.0E-3 to 2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.50E+6	psi	ASTM D638
Tensile Strength	20500	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 2.0	%	ASTM D638
Flexural Modulus	1.50E+6	psi	ASTM D790
Flexural Strength	30000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	0.80	ft-lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	405	°F	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+4	ohms	ASTM D257
Shielding Effectiveness	50 to 65	dB	ASTM D4935

Processing Information

	Nominal Value	Unit
Injection		
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

