InElec® PEINCCF30

Americhem - *Polyetherimide*

General Information

Product Description			
InElec PEINCCF30 is a 30% Nickel Coated Carbon Fiber Reinforced Polyetherimide			
General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 30% Filler by Weight		
Features	• Electrically Conductive • Electromagnetic Shielding (EMI) • ESD Protection	• Filled • Good Dimensional Stability • 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	1.51		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	1.75E+6	psi	ASTM D638
Tensile Strength	24000	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 2.0	%	ASTM D638
Flexural Modulus	1.80E+6	psi	ASTM D790
Flexural Strength	33000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (0.125 in)	0.90	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	4.0 to 5.0	ft·lb/in	ASTM D4812
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	424	°F	ASTM D648
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0 to 1.0E+2	ohms	ASTM D257
Shielding Effectiveness - 30-1000 MHZ	65 to 80	dB	ASTM D4935

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