InElec® PPSCF40

Americhem - *Polyphenylene Sulfide*

General Information

Product Description			
40% CARBON FIBER REINFORCED POLYPHENYLENE SULFIDE			
General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 40% Filler by Weight		
Features	• Branched Polymer Structure • 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	1.49		ASTM D792
Molding Shrinkage - Flow (0.125 in)	5.0E-4 to 1.0E-3	in/in	ASTM D955
Water Absorption (Equilibrium)	0.040	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	4.80E+6	psi	ASTM D638
Tensile Strength	29000	psi	ASTM D638
Tensile Elongation (Break)	0.80	%	ASTM D638
Flexural Modulus	4.20E+6	psi	ASTM D790
Flexural Strength	40000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	1.0	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	515	°F	ASTM D648
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+2 to 1.0E+4	ohms	ASTM D257

Processing Information

Injection	**Nominal Value**	**Unit**
Drying Temperature	250	°F
Drying Time	4.0	hr
Processing (Melt) Temp	580 to 630	°F
Mold Temperature	275 to 350	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	3.0E-4 to 5.0E-4	in