

**InElec® PBTCF20**
*Americhem - Polybutylene Terephthalate*
**General Information**
**Product Description**

20% CARBON FIBER REINFORCED PBT

**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	• Automotive Applications • Battery Cases • Connectors • Consumer Applications	• Electrical/Electronic Applications • Engineering Parts • Household Goods • Industrial Applications	• Industrial Parts • Semiconductor Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

**Properties <sup>1</sup>**

	Nominal Value	Unit	Test Method
<b>Physical</b>			
Density / Specific Gravity	1.37		ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.060	%	ASTM D570
<b>Mechanical</b>			
Tensile Strength	20000	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 3.0	%	ASTM D638
Flexural Modulus	1.80E+6	psi	ASTM D790
Flexural Strength	28500	psi	ASTM D790
<b>Impact</b>			
Notched Izod Impact (0.125 in)	1.1	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	9.0	ft·lb/in	ASTM D4812
<b>Thermal</b>			
Deflection Temperature Under Load (264 psi, Unannealed)	420	°F	ASTM D648
CLTE - Flow	8.0E-6	in/in/°F	ASTM D696
<b>Electrical</b>			
Surface Resistivity	1.0E+3 to 1.0E+7	ohms	ASTM D257

**Processing Information**

	Nominal Value	Unit
<b>Injection</b>		
Drying Temperature	230	°F
Drying Time	4.0	hr
Processing (Melt) Temp	430 to 500	°F
Mold Temperature	225	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

