

**InElec® PPACF30**

Americhem - Polyphthalamide

**General Information**
**Product Description**

30% CARBON FIBER REINFORCED PPA

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

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

	Nominal Value	Unit	Test Method
<b>Physical</b>			
Density / Specific Gravity	1.33		ASTM D792
Molding Shrinkage - Flow	5.0E-4 to 1.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
<b>Mechanical</b>			
Tensile Modulus	3.80E+6	psi	ASTM D638
Tensile Strength	43500	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 3.0	%	ASTM D638
Flexural Modulus	3.10E+6	psi	ASTM D790
Flexural Strength	58000	psi	ASTM D790
<b>Impact</b>			
Notched Izod Impact (0.125 in)	1.4	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	14	ft·lb/in	ASTM D4812
<b>Thermal</b>			
Deflection Temperature Under Load (264 psi, Unannealed)	540	°F	ASTM D648
<b>Electrical</b>			
Surface Resistivity	1.0E+2 to 1.0E+4	ohms	ASTM D257

**Processing Information**

	Nominal Value	Unit
<b>Injection</b>		
Drying Temperature	275	°F
Drying Time	4.0	hr
Processing (Melt) Temp	625	°F
Mold Temperature	275 to 325	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

