

**InElec® PPACF10**

Americhem - Polyphthalamide

## General Information

**Product Description**

10% CARBON FIBER REINFORCED PPA

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight		
Features	• 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	• Military/Defense Applications • Oil/Gas Applications • Outdoor Applications • Semiconductor Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

 Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.24		ASTM D792
Specific Volume	22.3	in <sup>3</sup> /lb	
Molding Shrinkage - Flow	1.0E-3 to 4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	22000	psi	ASTM D638
Tensile Elongation (Yield)	2.0 to 4.0	%	ASTM D638
Flexural Modulus	1.20E+6	psi	ASTM D790
Flexural Strength	31000	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)	6.0	ft·lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	480	°F	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+3 to 1.0E+7	ohms	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

## Processing Information

Injection	Nominal Value	Unit
Drying Temperature	275	°F
Drying Time	4.0	hr
Processing (Melt) Temp	625	°F
Mold Temperature	275	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	5.0E-4 to 1.0E-3	in

