

InElec® PPACF40

Americhem - Polyphthalamide

General Information
Product Description

40% CARBON FIBER REINFORCED PPA

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	• 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 ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.37		ASTM D792
Molding Shrinkage - Flow	5.0E-4 to 2.0E-3	in/in	ASTM D955
Mechanical			
Tensile Modulus	4.00E+6	psi	ASTM D638
Tensile Strength	44000	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 2.0	%	ASTM D638
Flexural Modulus	4.00E+6	psi	ASTM D790
Flexural Strength	60000	psi	ASTM D790
Impact			
Notched Izod Impact (0.125 in)	1.4	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	15	ft·lb/in	ASTM D4812
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	540	°F	ASTM D648
Electrical			
Surface Resistivity	< 1.0E+4	ohms	ASTM D257

Processing Information

	Nominal Value	Unit
Injection		
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

