

InElec® PPACF20

Americhem - Polyphthalamide

General Information

Product Description

20% CARBON FIBER REINFORCED PPA

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	• 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	1.28		ASTM D792
Specific Volume	21.6	in ³ /lb	
Molding Shrinkage - Flow	5.0E-4 to 2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
Mechanical			
Tensile Strength	35500	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 3.0	%	ASTM D638
Flexural Modulus	2.20E+6	psi	ASTM D790
Flexural Strength	50000	psi	ASTM D790
Impact			
Notched Izod Impact (0.125 in)	1.4	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	8.0	ft·lb/in	ASTM D4812
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	530	°F	ASTM D648
CLTE - Flow	1.2E-5	in/in/°F	ASTM D696
Electrical			
Surface Resistivity	1.0E+3 to 1.0E+5	ohms	
Flammability			
Flame Rating (0.06 in)	HB		UL 94

Processing Information

	Nominal Value	Unit
Injection		
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

