

InStruc® PPACF30HW

Americhem - Polyphthalamide

General Information
Product Description

30% CARBON FIBER REINFORCED HOT WATER MOLDABLE PPA

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Carbon Fiber, 30% Filler by Weight		
Features	• Electrically Conductive	• Good Dimensional Stability	• Hot Water Moldability
	• ESD Protection	• High Stiffness	• Permanent Antistatic
	• Filled	• High Strength	
Uses	• Connectors	• Housings	• Semiconductor Applications
	• Electrical/Electronic Applications	• Industrial Parts	
	• Engineering Parts	• Metal Replacement	
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
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
Mechanical			
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
Impact			
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
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	540	°F	ASTM D648
Electrical			
Surface Resistivity	1.0E+2 to 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	170 to 200	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

