

InStruc® PPACF30MD

Americhem - Polyphthalamide

General Information
Product Description

 30% CARBON FIBER REINFORCED POLYPHTHALAMIDE
 (MEDICALLY LOCKED FORMULATION)

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	• E-beam Sterilizable	• Good Dimensional Stability	• Radiation Sterilizable
	• Ethylene Oxide Sterilizable	• High Stiffness	• Steam Sterilizable
	• Filled	• High Strength	
Uses	• Connectors	• Housings	• Metal Replacement
	• Electrical/Electronic Applications	• Industrial Parts	• Semiconductor Applications
	• Engineering Parts	• Medical/Healthcare Applications	• Surgical Instruments
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
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	Nominal Value	Unit	Test Method
Tensile Modulus	3.60E+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	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.3	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	14	ft·lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	540	°F	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+2 to 1.0E+4	ohms	ASTM D257

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

