

InStruc® PA66CF40MD

Americhem - Polyamide 66

General Information

Product Description

40% CARBON FIBER REINFORCED NYLON 6/6 FOR HEALTHCARE APPLICATIONS

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Carbon Fiber, 40% Filler by Weight		
Features	• Electrically Conductive	• Filled	• High Strength
	• Electromagnetic Shielding (EMI)	• Good Dimensional Stability	• Permanent Antistatic
	• ESD Protection	• High Stiffness	• Radio Frequency Shielding (RFI)
Uses	• Closures	• Electrical/Electronic Applications	• Medical/Healthcare Applications
	• Connectors	• Engineering Parts	• Surgical Instruments
Forms	• Pellets		
Processing Method	• Injection Molding		

 Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.34		ASTM D792
Molding Shrinkage - Flow	5.0E-4 to 2.0E-3	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4.10E+6	psi	ASTM D638
Tensile Strength	38000	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 2.0	%	ASTM D638
Flexural Modulus	3.50E+6	psi	ASTM D790
Flexural Strength	58000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.8	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	16	ft·lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	490	°F	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+4	ohms	ASTM D257

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	175	°F
Drying Time	4.0	hr
Processing (Melt) Temp	500 to 575	°F
Mold Temperature	200	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

