InStruc® PA66CF10GF35HSMD

Americhem - *Polyamide 66*

General Information

Product Description

10% CARBON FIBER, 35% GLASS FIBER REINFORCED, HEAT STABILIZED, MEDICAL GRADE LOCKED FORMULA NYLON 6/6

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight	• Glass Fiber, 35% Filler by Weight	
Additive	• Heat Stabilizer		
Features	• Ethylene Oxide Sterilizable • Filled	• Good Dimensional Stability • Heat Stabilized	• High Stiffness • High Strength
Uses	• Closures • Electrical/Electronic Applications • Engineering Parts	• Housings • Industrial Parts • Medical/Healthcare Applications	• Surgical Instruments • Window & Door Components
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.49		ASTM D792
Molding Shrinkage - Flow	4.0E-3 to 6.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.80	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2.54E+6	psi	ASTM D638
Tensile Strength	33000	psi	ASTM D638
Tensile Elongation (Yield)	2.0 to 4.0	%	ASTM D638
Flexural Modulus	2.35E+6	psi	ASTM D790
Flexural Strength	46000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (0.125 in)	2.0	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+2 to 1.0E+6	ohms	ASTM D257

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	175	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.15	%
Processing (Melt) Temp	500 to 575	°F
Mold Temperature	200	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm