

InElec® PA6CF20

Americhem - Polyamide 6

General Information
Product Description

20% CARBON FIBER REINFORCED NYLON 6

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	• Closures • Connectors • Consumer Applications • Electrical/Electronic Applications	• Engineering Parts • Household Goods • Industrial Applications • Industrial Parts	• Office Automation Equipment • Outdoor Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.22		ASTM D792
Molding Shrinkage - Flow	3.0E-3 to 4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	1.3	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	25000	psi	ASTM D638
Tensile Elongation (Yield)	2.0 to 3.0	%	ASTM D638
Flexural Modulus	1.60E+6	psi	ASTM D790
Flexural Strength	38000	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)	425	°F	ASTM D648
CLTE - Flow	1.7E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+3 to 1.0E+5	ohms	ASTM D257

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	175	°F
Drying Time	4.0	hr
Processing (Melt) Temp	480 to 550	°F
Mold Temperature	200	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

