

InStruc® PA6GF20MD

Americhem - Polyamide 6

General Information

Product Description

20% GLASS FIBER REINFORCED NYLON 6 LOCKED FORMULATION FOR MEDICAL USAGE

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Features	• Ethylene Oxide Sterilizable	• Good Dimensional Stability	• High Strength
	• Filled	• High Stiffness	
Uses	• Closures	• Housings	• Surgical Instruments
	• Electrical/Electronic Applications	• Industrial Parts	• Window & Door Components
	• Engineering Parts	• Medical/Healthcare Applications	
Forms	• Pellets		
Processing Method	• Injection Molding		

 Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.27		ASTM D792
Specific Volume	21.8	in ³ /lb	
Molding Shrinkage - Flow	4.0E-3 to 5.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	1.3	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	19000	psi	ASTM D638
Tensile Elongation (Yield)	3.0 to 4.0	%	ASTM D638
Flexural Modulus	900000	psi	ASTM D790
Flexural Strength	28000	psi	ASTM D790
Shear Strength	10000	psi	ASTM D732
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.2	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	10	ft·lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	410	°F	ASTM D648
CLTE - Flow	2.2E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+17	ohms	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

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
Vent Depth	5.0E-4 to 1.0E-3	in

