

InStruc® PA610GF20

Americhem - Polyamide 610

General Information

Product Description

20% GLASS FIBER REINFORCED NYLON 610

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight
Features	• Filled • High Stiffness • Good Dimensional Stability • High Strength
Uses	• Closures • Household Goods • Office Automation Equipment • Consumer Applications • Housings • Outdoor Applications • Electrical/Electronic Applications • Industrial Applications • Window & Door Components • Engineering Parts • Industrial Parts
Forms	• Pellets
Processing Method	• Injection Molding

 Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.22		ASTM D792
Specific Volume	22.7	in ³ /lb	
Molding Shrinkage - Flow	4.0E-3 to 5.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
Mechanical			
Tensile Strength	18000	psi	ASTM D638
Tensile Elongation (Yield)	3.0 to 4.0	%	ASTM D638
Flexural Modulus	900000	psi	ASTM D790
Flexural Strength	26000	psi	ASTM D790
Impact			
Notched Izod Impact (0.125 in)	1.8	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	15	ft·lb/in	ASTM D4812
Hardness			
Rockwell Hardness (M-Scale)	89		
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	410	°F	ASTM D648
CLTE - Flow	2.2E-5	in/in/°F	ASTM D696
Electrical			
Surface Resistivity	1.0E+17	ohms	
Flammability			
Flame Rating (0.06 in)	HB		UL 94

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	175	°F
Drying Time	4.0	hr
Processing (Melt) Temp	460 to 525	°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

