

InStruc® PA610GF30

Americhem - Polyamide 610

General Information

Product Description	
30% GLASS FIBER REINFORCED NYLON 610	
General	
Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Carbon Fiber, 30% 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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.30		ASTM D792
Specific Volume	21.3	in ³ /lb	
Molding Shrinkage - Flow	3.5E-3 to 4.5E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	22000	psi	ASTM D638
Tensile Elongation (Yield)	2.0 to 5.0	%	ASTM D638
Flexural Modulus	1.10E+6	psi	ASTM D790
Flexural Strength	32000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	2.4	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	20	ft·lb/in	ASTM D4812
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	93		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	420	°F	ASTM D648
CLTE - Flow	1.5E-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	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

