

**InStruc® PA6CF15GF15IM2**

Americhem - Polyamide 6

**General Information**
**Product Description**

15% CARBON FIBER REINFORCED, 15% GLASS FIBER REINFORCED, IMPACT MODIFIED NYLON 6

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 15% Filler by Weight	• Glass Fiber, 15% Filler by Weight	
Additive	• Impact Modifier		
Features	• Filled • Good Dimensional Stability • High Impact Resistance	• High Stiffness • High Strength • Impact Modified	• Low Temperature Toughness
Uses	• Automotive Applications • Closures • Consumer Applications • Electrical/Electronic Applications	• Engineering Parts • Household Goods • Industrial Applications • Industrial Parts	• Office Automation Equipment • Outdoor Applications • Window & Door Components
Forms	• Pellets		
Processing Method	• Injection Molding		

**Properties <sup>1</sup>**

	Nominal Value	Unit	Test Method
<b>Physical</b>			
Density / Specific Gravity	1.32		ASTM D792
Molding Shrinkage - Flow	3.0E-3 to 4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	1.3	%	ASTM D570
<b>Mechanical</b>			
Tensile Modulus	1.20E+6	psi	ASTM D638
Tensile Strength	19000	psi	ASTM D638
Tensile Elongation (Yield)	4.0 to 5.0	%	ASTM D638
Flexural Modulus	1.10E+6	psi	ASTM D790
Flexural Strength	29000	psi	ASTM D790
<b>Impact</b>			
Notched Izod Impact (0.125 in)	3.0	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	18 to 20	ft·lb/in	ASTM D4812
<b>Thermal</b>			
Deflection Temperature Under Load (264 psi, Unannealed)	380	°F	ASTM D648
<b>Electrical</b>			
Surface Resistivity	1.0E+2 to 1.0E+6	ohms	ASTM D257

**Processing Information**

	Nominal Value	Unit
<b>Injection</b>		
Drying Temperature	175	°F
Drying Time	4.0	hr
Processing (Melt) Temp	520	°F
Mold Temperature	200	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

