

**InStruc® PPAGF33HS**

Americhem - Polyphthalamide

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

33% GLASS FIBER REINFORCED, HEAT STABILIZED, POLYPHTHALAMIDE (PPA)

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Filled • Good Dimensional Stability	• Heat Stabilized • High Stiffness	• High Strength
Uses	• Aerospace Applications • Connectors • Consumer Applications • Electrical/Electronic Applications • Engineering Parts	• Housings • Industrial Applications • Industrial Parts • Metal Replacement • Military/Defense Applications	• Oil/Gas Applications • Outdoor Applications • Semiconductor Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

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

<b>Physical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Density / Specific Gravity	1.46		ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus	1.75E+6	psi	ASTM D638
Tensile Strength	30000	psi	ASTM D638
Tensile Elongation (Yield)	2.0 to 4.0	%	ASTM D638
Flexural Modulus	1.70E+6	psi	ASTM D790
Flexural Strength	41000	psi	ASTM D790
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Notched Izod Impact (0.125 in)	1.8	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	13	ft·lb/in	ASTM D4812
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (264 psi, Unannealed)	530	°F	ASTM D648

**Processing Information**

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
Drying Temperature	275	°F
Drying Time	4.0	hr
Processing (Melt) Temp	625	°F
Mold Temperature	275	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	5.0E-4 to 1.0E-3	in

