

**InStruc® PESGF30**

Americhem - Polyethersulfone

## General Information

**Product Description**

30% GLASS FIBER REINFORCED POLYETHERSULFONE

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight		
Features	• Filled • Good Dimensional Stability	• 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>

	Nominal Value	Unit	Test Method
<b>Physical</b>			
Density / Specific Gravity	1.60		ASTM D792
Specific Volume	17.3	in <sup>3</sup> /lb	
Molding Shrinkage - Flow	2.0E-3 to 3.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
<b>Mechanical</b>			
Tensile Strength	20300	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 3.0	%	ASTM D638
Flexural Modulus	1.20E+6	psi	ASTM D790
Flexural Strength	28000	psi	ASTM D790
<b>Impact</b>			
Notched Izod Impact (0.125 in)	1.6	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	12	ft·lb/in	ASTM D4812
<b>Hardness</b>			
Rockwell Hardness (M-Scale)	98		
<b>Thermal</b>			
Deflection Temperature Under Load (264 psi, Unannealed)	420	°F	ASTM D648
CLTE - Flow	1.3E-5	in/in/°F	ASTM D696
<b>Electrical</b>			
Surface Resistivity	1.0E+17	ohms	
<b>Flammability</b>			
Flame Rating (0.06 in)	V-0		UL 94

## Processing Information

	Nominal Value	Unit
<b>Injection</b>		
Drying Temperature	300	°F
Drying Time	4.0	hr
Processing (Melt) Temp	650 to 715	°F
Mold Temperature	300	°F
Back Pressure	50.0 to 100	psi



Screw Speed	40 to 70 rpm
Vent Depth	1.5E-3 to 3.0E-3 in

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

