

**InStruc® PESGF20**

Americhem - Polyethersulfone

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

20% GLASS FIBER REINFORCED POLYETHERSULFONE

**General**

Material Status	<ul style="list-style-type: none"> <li>Commercial: Active</li> </ul>		
Availability	<ul style="list-style-type: none"> <li>Africa &amp; Middle East</li> <li>Asia Pacific</li> </ul>	<ul style="list-style-type: none"> <li>Europe</li> <li>Latin America</li> </ul>	<ul style="list-style-type: none"> <li>North America</li> </ul>
Filler / Reinforcement	<ul style="list-style-type: none"> <li>Glass Fiber, 20% Filler by Weight</li> </ul>		
Features	<ul style="list-style-type: none"> <li>Filled</li> <li>Good Dimensional Stability</li> </ul>	<ul style="list-style-type: none"> <li>High Stiffness</li> <li>High Strength</li> </ul>	
Uses	<ul style="list-style-type: none"> <li>Aerospace Applications</li> <li>Connectors</li> <li>Consumer Applications</li> <li>Electrical/Electronic Applications</li> <li>Engineering Parts</li> </ul>	<ul style="list-style-type: none"> <li>Housings</li> <li>Industrial Applications</li> <li>Industrial Parts</li> <li>Metal Replacement</li> <li>Military/Defense Applications</li> </ul>	<ul style="list-style-type: none"> <li>Oil/Gas Applications</li> <li>Outdoor Applications</li> <li>Semiconductor Applications</li> </ul>
Forms	<ul style="list-style-type: none"> <li>Pellets</li> </ul>		
Processing Method	<ul style="list-style-type: none"> <li>Injection Molding</li> </ul>		

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

<b>Physical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Density / Specific Gravity	1.51		ASTM D792
Specific Volume	18.3	in <sup>3</sup> /lb	
Molding Shrinkage - Flow	3.0E-3 to 4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.35	%	ASTM D570
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Strength	19000	psi	ASTM D638
Tensile Elongation (Yield)	2.0 to 4.0	%	ASTM D638
Flexural Modulus	900000	psi	ASTM D790
Flexural Strength	28000	psi	ASTM D790
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Notched Izod Impact (0.125 in)	1.4	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	10	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)	420	°F	ASTM D648
CLTE - Flow	1.4E-5	in/in/°F	ASTM D696
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity	1.0E+17	ohms	
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating (0.06 in)	V-0		UL 94

**Processing Information**

	<b>Nominal Value</b>	<b>Unit</b>
<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

