

**InLube® PESCF20TF10**

Americhem - Polyethersulfone

## General Information

**Product Description**

InLube PESCF20TF10 is a 20% carbon fiber reinforced, 10% PTFE lubricated 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> <li>Europe</li> <li>Latin America</li> <li>North America</li> </ul>
Filler / Reinforcement	<ul style="list-style-type: none"> <li>Carbon Fiber, 20% Filler by Weight</li> </ul>
Additive	<ul style="list-style-type: none"> <li>PTFE Lubricant: 10%</li> </ul>
Features	<ul style="list-style-type: none"> <li>Chemical Resistant</li> <li>Filled</li> <li>Good Dimensional Stability</li> <li>Good Mold Release</li> <li>High Stiffness</li> <li>High Strength</li> <li>Low Friction</li> <li>Lubricated</li> <li>Wear Resistant</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> <li>Industrial Applications</li> <li>Industrial Parts</li> <li>Metal Replacement</li> <li>Military/Defense Applications</li> <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>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.50		ASTM D792
Specific Volume	18.5	in <sup>3</sup> /lb	
Molding Shrinkage - Flow	1.0E-3 to 2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	21000	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 3.0	%	ASTM D638
Flexural Modulus	2.00E+6	psi	ASTM D790
Flexural Strength	31000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.0	ft-lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	5.0	ft-lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	415	°F	ASTM D648
CLTE - Flow	1.2E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+3 to 1.0E+7	ohms	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-0		UL 94

## Processing Information

Injection	Nominal Value	Unit
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

