

**InLube® PBTGF20SI2MD**

Americhem - Polybutylene Terephthalate

## General Information

**Product Description**

20% GLASS FIBER REINFORCED, 2% SILICONE LUBRICATED PBT. LOCKED FORMULATION FOR MEDICAL USAGE

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Additive	• Silicone Lubricant: 2%		
Features	• E-beam Sterilizable • Ethylene Oxide Sterilizable • Filled • Good Dimensional Stability	• High Stiffness • High Strength • Low Friction • Lubricated	• Radiation Sterilizable • Steam Sterilizable
Uses	• Battery Cases • Connectors • Electrical/Electronic Applications	• Engineering Parts • Industrial Parts • Medical/Healthcare Applications	• Semiconductor Applications • Surgical Instruments
Forms	• Pellets		
Processing Method	• Injection Molding		

 Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.44		ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 6.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.080	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	15500	psi	ASTM D638
Tensile Elongation (Yield)	3.0 to 5.0	%	ASTM D638
Flexural Modulus	820000	psi	ASTM D790
Flexural Strength	23500	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.5	ft-lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	12	ft-lb/in	ASTM D4812
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	82		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	400	°F	ASTM D648
CLTE - Flow	1.4E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+17	ohms	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

## Processing Information

Injection	Nominal Value	Unit
Drying Temperature	230	°F
Drying Time	4.0	hr
Processing (Melt) Temp	430 to 500	°F
Mold Temperature	225	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	1.5E-3 to 3.0E-3	in

