

## InStruc® PBTGF30

Americhem - Polybutylene Terephthalate

### General Information

#### Product Description

InStruc PBTGF30 is a 30% glass fiber reinforced Polybutylene Terephthalate (PBT). Used in injection molding, this grade has excellent chemical resistance and dimensional stability. This material is well suited for electrical applications including connectors, relays, and bobbins. InStruc PBTGF30 can also be used in automotive and consumer products.

#### General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Filled • High Stiffness • Good Dimensional Stability • High Strength
Uses	• Automotive Applications • Electrical/Electronic Applications • Industrial Applications • Battery Cases • Engineering Parts • Industrial Parts • Connectors • Household Goods • Semiconductor Applications • Consumer Applications • Housings
Forms	• Pellets
Processing Method	• Injection Molding

### Properties <sup>1</sup>

	Nominal Value	Unit	Test Method
<b>Physical</b>			
Density / Specific Gravity	1.54		ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.060	%	ASTM D570
<b>Mechanical</b>			
Tensile Modulus	1.40E+6	psi	ASTM D638
Tensile Strength	18500	psi	ASTM D638
Tensile Elongation (Yield)	3.0 to 4.0	%	ASTM D638
Flexural Modulus	1.50E+6	psi	ASTM D790
Flexural Strength	29000	psi	ASTM D790
<b>Impact</b>			
Notched Izod Impact (0.125 in)	1.4	ft-lb/in	ASTM D256
<b>Thermal</b>			
Deflection Temperature Under Load (264 psi, Unannealed)	415	°F	ASTM D648

### Processing Information

	Nominal Value	Unit
<b>Injection</b>		
Drying Temperature	230	°F
Drying Time	4.0	hr
Processing (Melt) Temp	460 to 500	°F
Mold Temperature	200 to 230	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm

