

**InStruc® FRPBTGF30**

Americhem - Polybutylene Terephthalate

## General Information

**Product Description**

InStruc FRPBTGF30 is a 30% glass fiber reinforced, flame retardant, Polybutylene Terephthalate (PBT). Used in injection molding, this grade has excellent chemical resistance and a UL94 V0 @ 0.8mm. This material can be used in the automotive, consumer products, and health care industries.

**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
	• Closures	• Engineering Parts	• Industrial Parts
	• Connectors	• Household Goods	• Office Automation Equipment
	• Consumer Applications	• Housings	
Forms	• Pellets		
Processing Method	• Injection Molding		

 Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.61		ASTM D792
Molding Shrinkage - Flow	3.0E-3 to 5.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.070	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.30E+6	psi	ASTM D638
Tensile Strength	16000	psi	ASTM D638
Tensile Elongation (Yield)	1.0 to 2.0	%	ASTM D638
Flexural Modulus	1.35E+6	psi	ASTM D790
Flexural Strength	22000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.4	ft-lb/in	ASTM D256
Unnotched Izod Impact	8.0 to 12	ft-lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	300	°F	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 1.0E+16	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.031 in)	V-0		UL 94

## Processing Information

Injection	Nominal Value	Unit
Drying Temperature	230	°F
Drying Time	4.0	hr
Processing (Melt) Temp	490 to 530	°F
Mold Temperature	140 to 190	°F
Back Pressure	50.0 to 100	psi
Screw Speed	40 to 70	rpm
Vent Depth	1.5E-3 to 3.0E-3	in

