

InStruc® PBTGF15

Americhem - Polybutylene Terephthalate

General Information

Product Description

InStruc PBTGF15 is a 15% 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 PBTGF15 can also be used in automotive and consumer products.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 15% Filler by Weight
Features	• Filled • Good Dimensional Stability • High Stiffness • High Strength
Uses	• Automotive Applications • Battery Cases • Connectors • Consumer Applications • Electrical/Electronic Applications • Engineering Parts • Household Goods • Housings • Industrial Applications • Industrial Parts • Semiconductor Applications
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.40		ASTM D792
Molding Shrinkage - Flow	4.0E-3 to 9.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.060	%	ASTM D570
Mechanical			
Tensile Modulus	850000	psi	ASTM D638
Tensile Strength	14500	psi	ASTM D638
Tensile Elongation (Yield)	4.0 to 5.0	%	ASTM D638
Flexural Modulus	820000	psi	ASTM D790
Flexural Strength	22500	psi	ASTM D790
Impact			
Notched Izod Impact (0.125 in)	1.1	ft·lb/in	ASTM D256
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	380	°F	ASTM D648

Processing Information

	Nominal Value	Unit
Injection		
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

