

HiFill® PET GF45 NAT

 Techmer Polymer Modifiers - *Polyethylene Terephthalate*
General Information
General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 45% Filler by Weight
Appearance	• Colors Available
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.69		ASTM D792
Molding Shrinkage - Flow (0.125 in)	2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.035	%	ASTM D570
Mechanical			
Tensile Strength (Break)	27500	psi	ASTM D638
Tensile Elongation (Break)	2.0	%	ASTM D638
Flexural Modulus	2.00E+6	psi	ASTM D790
Flexural Strength	41000	psi	ASTM D790
Impact			
Notched Izod Impact (73°F, 0.125 in)	2.1	ft-lb/in	ASTM D256
Hardness			
Rockwell Hardness (R-Scale)	121		ASTM D785
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	440	°F	ASTM D648
Melting Temperature	489	°F	
CLTE - Flow	1.3E-5	in/in/°F	ASTM D696
Electrical			
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	450	V/mil	ASTM D149

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	250	°F
Drying Time	4.0	hr
Rear Temperature	520 to 550	°F
Middle Temperature	520 to 550	°F
Front Temperature	520 to 550	°F
Processing (Melt) Temp	525	°F
Mold Temperature	200 to 230	°F
Back Pressure	50.0 to 100	psi
Screw Speed	30 to 60	rpm

