

## HiFill® PBT GF/M40 BK

Techmer Polymer Modifiers - *Polybutylene Terephthalate*

### General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber/Mineral, 40% Filler by Weight
Appearance	• Black
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 (0.125 in)	5.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.070	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	11000	psi	ASTM D638
Tensile Elongation (Break)	2.0	%	ASTM D638
Flexural Modulus	1.15E+6	psi	ASTM D790
Flexural Strength (Yield)	18000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.4	ft·lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	109		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	390	°F	ASTM D648
CLTE - Flow	1.4E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	3.0E+15	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	590	V/mil	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.031 in)	HB		UL 94

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	4.0	hr
Rear Temperature	450 to 525	°F
Middle Temperature	450 to 525	°F
Front Temperature	450 to 525	°F
Processing (Melt) Temp	450 to 475	°F
Mold Temperature	150 to 180	°F
Back Pressure	50.0 to 100	psi
Screw Speed	30 to 60	rpm

