

HiFill® PES GF40

 Techmer Polymer Modifiers - *Polyethersulfone*
General Information
General

Material Status	<ul style="list-style-type: none"> Commercial: Active
Availability	<ul style="list-style-type: none"> North America
Filler / Reinforcement	<ul style="list-style-type: none"> Glass Fiber, 40% Filler by Weight
Appearance	<ul style="list-style-type: none"> Colors Available
Forms	<ul style="list-style-type: none"> Pellets
Processing Method	<ul style="list-style-type: none"> Injection Molding

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.68		ASTM D792
Molding Shrinkage - Flow (0.125 in)	1.5E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.32	%	ASTM D570
Mechanical			
Nominal Value Unit Test Method			
Tensile Strength (Break)	22000	psi	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	1.60E+6	psi	ASTM D790
Flexural Strength	29800	psi	ASTM D790
Impact			
Nominal Value Unit Test Method			
Notched Izod Impact (73°F, 0.125 in)	1.6	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	12	ft·lb/in	ASTM D4812
Hardness			
Nominal Value Unit Test Method			
Rockwell Hardness (M-Scale)	121		ASTM D785
Thermal			
Nominal Value Unit Test Method			
Deflection Temperature Under Load (264 psi, Unannealed)	420	°F	ASTM D648
CLTE - Flow	1.3E-5	in/in/°F	ASTM D696
Electrical			
Nominal Value Unit Test Method			
Volume Resistivity	3.0E+16	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	450	V/mil	ASTM D149
Flammability			
Nominal Value Unit Test Method			
Flame Rating	V-0		UL 94

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	290	°F
Drying Time	2.0 to 3.0	hr
Rear Temperature	650 to 735	°F
Middle Temperature	650 to 735	°F
Front Temperature	650 to 735	°F
Processing (Melt) Temp	630 to 730	°F
Mold Temperature	280 to 325	°F
Back Pressure	50.0 to 100	psi
Screw Speed	50 to 100	rpm

