

**HiFill® 450 A**

 Techmer Polymer Modifiers - *Polyetheretherketone*
**General Information**
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Material Status	• Commercial: Active
Availability	• North America
Features	• Medium Flow
Appearance	• Colors Available
Forms	• Pellets
Processing Method	• Injection Molding      • Pipe Extrusion

**Properties <sup>1</sup>**

	Nominal Value	Unit	Test Method
<b>Physical</b>			
Density / Specific Gravity	1.30		ASTM D792
Molding Shrinkage - Flow (0.125 in)	0.016	in/in	ASTM D955
Water Absorption (24 hr)	0.12	%	ASTM D570
<b>Mechanical</b>			
Tensile Strength (Yield)	13500	psi	ASTM D638
Tensile Elongation (Yield)	5.0	%	ASTM D638
Flexural Modulus	595000	psi	ASTM D790
Flexural Strength	25000	psi	ASTM D790
<b>Impact</b>			
Notched Izod Impact (73°F, 0.125 in)	1.5	ft-lb/in	ASTM D256
<b>Hardness</b>			
Rockwell Hardness (R-Scale)	105		ASTM D785
<b>Thermal</b>			
Deflection Temperature Under Load (264 psi, Unannealed)	320	°F	ASTM D648
CLTE - Flow	2.6E-5	in/in/°F	ASTM D696
<b>Electrical</b>			
Volume Resistivity	> 1.0E+15	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	300	V/mil	ASTM D149
<b>Flammability</b>			
Flame Rating (0.16 in)	V-0		UL 94

**Processing Information**

	Nominal Value	Unit
<b>Injection</b>		
Drying Temperature	300	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	680 to 730	°F
Middle Temperature	680 to 730	°F
Front Temperature	680 to 730	°F
Processing (Melt) Temp	680 to 720	°F
Mold Temperature	350 to 425	°F
Back Pressure	50.0 to 100	psi
Screw Speed	50 to 100	rpm

