

HiFill® PEEK 4500 BK

Techmer Polymer Modifiers - *Polyetheretherketone*

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Features	• High Viscosity
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
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
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	14000	psi	ASTM D638
Tensile Elongation (Yield)	50	%	ASTM D638
Flexural Modulus	595000	psi	ASTM D790
Flexural Strength	25000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	1.6	ft-lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	105		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	608	°F	ASTM D648
CLTE - Flow	2.6E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	300	V/mil	ASTM D149

Processing Information

Injection	Nominal Value	Unit
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

