Electrafil® PPS/F CF40 BK

Techmer Polymer Modifiers - *Polyphenylene Sulfide*

General	
Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Carbon Fiber, 40% Filler by Weight
Features	• Conductive
Appearance	• Black
Processing Method	• Injection Molding

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.49		ASTM D792
Molding Shrinkage - Flow (0.125 in)	5.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.020	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	3.50E+6	psi	ASTM D638
Tensile Strength (Yield)	25000	psi	ASTM D638
Tensile Elongation (Break)	1.0	%	ASTM D638
Flexural Modulus	4.50E+6	psi	ASTM D790
Flexural Strength	36500	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (0.125 in)	1.0	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	510	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	505	°F	ASTM D648
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+2 to 1.0E+6	ohms	ASTM D257

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	325	°F
Drying Time	4.0	hr
Rear Temperature	550 to 580	°F
Middle Temperature	600 to 650	°F
Front Temperature	590 to 630	°F
Nozzle Temperature	600 to 630	°F
Processing (Melt) Temp	615 to 640	°F
Mold Temperature	265 to 325	°F
Injection Rate	Slow	
Back Pressure	0.00 to 100	psi
Screw Speed	Slow	