

Electrafil® PPS/F 05002

Techmer Polymer Modifiers - Polyphenylene Sulfide

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Carbon Fiber
Features	• Electrically Conductive
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.48		ASTM D792
Molding Shrinkage - Flow (0.125 in)	4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.050	%	ASTM D570
Mechanical			
Tensile Strength (Break)	24000	psi	ASTM D638
Tensile Elongation (Break)	1.7	%	ASTM D638
Flexural Modulus	1.90E+6	psi	ASTM D790
Flexural Strength	33000	psi	ASTM D790
Impact			
Notched Izod Impact (73°F, 0.125 in)	0.90	ft·lb/in	ASTM D256
Hardness			
Rockwell Hardness (R-Scale)	116		ASTM D785
Thermal			
Deflection Temperature Under Load (66 psi, Unannealed)	525	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	500	°F	ASTM D648
CLTE - Flow	1.1E-5	in/in/°F	ASTM D696
Electrical			
Surface Resistivity	10 to 1.0E+3	ohms	ASTM D257
Volume Resistivity	10 to 1.0E+3	ohms·cm	ASTM D257
Flammability			
Flame Rating (0.03 in)	V-0		UL 94

Processing Information

	Nominal Value	Unit
Injection		
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

