

HiFill® 1105-10819 NAT

 Techmer Polymer Modifiers - *Polyetheretherketone*
General Information
General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Carbon Fiber
Appearance	• Black • Colors Available
Processing Method	• Injection Molding

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.40		ASTM D792
Molding Shrinkage - Flow (0.125 in)	1.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.040	%	ASTM D570
Mechanical			
Tensile Strength (Break)	38000	psi	ASTM D638
Tensile Elongation (Break)	1.7	%	ASTM D638
Flexural Modulus	3.30E+6	psi	ASTM D790
Flexural Strength	55000	psi	ASTM D790
Hardness			
Rockwell Hardness (R-Scale)	118		ASTM D785
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	635	°F	ASTM D648
CLTE - Flow	6.0E-6	in/in/°F	ASTM D696
Electrical			
Surface Resistivity	1.0E+2 to 1.0E+3	ohms	ASTM D257
Volume Resistivity	1.0E+2 to 1.0E+3	ohms·cm	ASTM D257
Shielding Effectiveness - 30 to 1000 MHz	30	dB	ASTM D4935
Static Decay	< 0.500		FTMS 101B
Flammability			
Flame Rating (0.03 in)	V-0		UL 94

Processing Information

	Nominal Value	Unit
Injection		
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

