

HiFill® PPA CF40

 Techmer Polymer Modifiers - *Polyphthalamide*
General Information
General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Carbon Fiber, 40% Filler by Weight
Features	<ul style="list-style-type: none"> • High Heat Resistance • Low Friction <ul style="list-style-type: none"> • Lubricated • Wear Resistant
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.38		ASTM D792
Molding Shrinkage - Flow (0.125 in)	1.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.60	%	ASTM D570
Mechanical			
Tensile Modulus	4.90E+6	psi	ASTM D638
Tensile Strength (Break)	36000	psi	ASTM D638
Tensile Elongation (Break)	1.0	%	ASTM D638
Flexural Modulus	3.89E+6	psi	ASTM D790
Flexural Strength	39000	psi	ASTM D790
Impact			
Notched Izod Impact (73°F, 0.125 in)	1.2	ft·lb/in	ASTM D256
Hardness			
Rockwell Hardness (R-Scale)	100		ASTM D785
Thermal			
Deflection Temperature Under Load (66 psi, Unannealed)	> 478	°F	ASTM D648
Melting Temperature	565	°F	
CLTE - Flow	1.5E-5	in/in/°F	ASTM D696
Electrical			
Volume Resistivity	10	ohms·cm	ASTM D257
Flammability			
Flame Rating	HB		UL 94

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	220	°F
Drying Time	4.0 to 8.0	hr
Rear Temperature	620 to 680	°F
Middle Temperature	620 to 680	°F
Front Temperature	620 to 680	°F
Processing (Melt) Temp	600 to 640	°F
Mold Temperature	200 to 300	°F
Back Pressure	0.00 to 50.0	psi
Screw Speed	30 to 60	rpm

