

HiFill® PPA CF40 A

 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 • Lubricated • Wear Resistant
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
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	Nominal Value	Unit	Test Method
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	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	1.2	ft·lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	100		ASTM D785
Thermal	Nominal Value	Unit	Test Method
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	Nominal Value	Unit	Test Method
Volume Resistivity	10	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
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

