HiFill® PPA CF35

Techmer Polymer Modifiers - *Polyphthalamide*

General Information

General	
Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Carbon Fiber, 35% Filler by Weight
Features	• High Heat Resistance
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 Strength (Break)	35000	psi	ASTM D638
Tensile Elongation (Break)	2.6	%	ASTM D638
Flexural Modulus	2.50E+6	psi	ASTM D790
Flexural Strength	40000	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)	558	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	545	°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	1.0E+2 to 1.0E+4	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