

## HiFill® PPS/F GF40 YL144

Techmer Polymer Modifiers - Polyphenylene Sulfide

### General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight
Appearance	• Colors Available      • Yellow
Forms	• Pellets
Processing Method	• Injection Molding

### ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.80 to 1.85		ASTM D792
Molding Shrinkage - Flow (0.125 in)	3.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.030	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	19500	psi	ASTM D638
Tensile Elongation (Break)	2.0 to 3.0	%	ASTM D638
Flexural Modulus	2.00E+6	psi	ASTM D790
Flexural Strength	32000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	2.0 to 3.0	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)	540	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	520	°F	ASTM D648
CLTE - Flow	1.1E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	560	V/mil	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94

### Processing Information

Injection	Nominal Value	Unit
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

