

HiFill® PA6 GF/M40 IG BK

Techmer Polymer Modifiers - Polyamide 6

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber/Mineral, 40% Filler by Weight
Additive	• Heat Stabilizer • Lubricant
Features	• Heat Stabilized • Lubricated
Appearance	• Colors Available
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.48		ASTM D792
Molding Shrinkage - Flow (0.125 in)	4.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.90	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	17300	psi	ASTM D638
Tensile Elongation (Yield)	3.0	%	ASTM D638
Flexural Modulus	1.16E+6	psi	ASTM D790
Flexural Strength (Yield)	30000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.0	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	14	ft·lb/in	ASTM D4812
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	122		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	410	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	395	°F	ASTM D648
CLTE - Flow	1.7E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+13	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	400	V/mil	ASTM D149

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	4.0	hr
Rear Temperature	500 to 580	°F
Middle Temperature	500 to 580	°F
Front Temperature	500 to 580	°F
Processing (Melt) Temp	470 to 520	°F
Mold Temperature	150 to 200	°F
Back Pressure	0.00 to 50.0	psi
Screw Speed	30 to 60	rpm

