HiFill FR® PA6 GF/M45 L LE BK

Techmer Polymer Modifiers - *Polyamide 6*

General	
Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber\Mineral, 50% Filler by Weight
Features	• Flame Retardant
Appearance	• Colors Available
Forms	• Pellets
Processing Method	• Injection Molding

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.51		ASTM D792
Molding Shrinkage - Flow (0.125 in)	4.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow	7.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.55	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength	16800	psi	ASTM D638
Tensile Strength (Break)	27000	psi	ASTM D638
Tensile Elongation (Yield)	3.9	%	ASTM D638
Tensile Elongation (Break)	2.5	%	ASTM D638
Flexural Modulus	1.26E+6	psi	ASTM D790
Flexural Strength	32000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.125 in)	1.0	ft·lb/in	ASTM D256
Unnotched Izod Impact	14	ft·lb/in	ASTM D4812
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	121		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	420	°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
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.03 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	2.0 to 4.0	hr
Rear Temperature	450 to 495	°F
Middle Temperature	450 to 495	°F
Front Temperature	450 to 495	°F
Processing (Melt) Temp	460 to 510	°F
Mold Temperature	150 to 200	°F
Back Pressure	50.0 to 100	psi
Screw Speed	30 to 60	rpm