

HiFill® PPA GF45 HS L X

Techmer Polymer Modifiers - *Polyphthalamide*

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 45% Filler by Weight
Additive	• Heat Stabilizer • Lubricant • Mold Release
Features	• Good Mold Release • Heat Stabilized • Lubricated
Appearance	• Colors Available
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.68		ASTM D792
Molding Shrinkage - Flow (0.125 in)	6.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.18	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	34000	psi	ASTM D638
Tensile Elongation (Break)	2.5	%	ASTM D638
Flexural Modulus	1.90E+6	psi	ASTM D790
Flexural Strength (Yield)	48000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.8	ft·lb/in	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	572	°F	ASTM D648
CLTE - Flow	1.5E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+17	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	520	V/mil	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	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

Notes

¹ Typical properties: these are not to be construed as specifications.

