

HiFill® HDPE GF20 BK

Techmer Polymer Modifiers - *High Density Polyethylene*

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.10		ASTM D792
Molding Shrinkage - Flow (0.125 in)	3.5E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.30	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	8000	psi	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	590000	psi	ASTM D790
Flexural Strength	10000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (0.125 in)	1.5	ft-lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	5.0	ft-lb/in	ASTM D4812
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	80		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	265	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	250	°F	ASTM D648
CLTE - Flow	3.0E-5	in/in/°F	ASTM D696
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	170	°F
Drying Time	2.0 to 3.0	hr
Rear Temperature	450 to 500	°F
Middle Temperature	450 to 500	°F
Front Temperature	450 to 500	°F
Processing (Melt) Temp	425 to 475	°F
Mold Temperature	80 to 120	°F
Back Pressure	50.0 to 100	psi
Screw Speed	30 to 60	rpm

Notes

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

