

# HiFill® HDPE GF40

High Density Polyethylene

Techmer Engineered Solutions

## Message:

HiFill® HDPE GF40 is a High Density Polyethylene product filled with 40% glass fiber. It can be processed by injection molding and is available in North America. Primary characteristic: flame rated.

General Information			
Filler / Reinforcement	Glass Fiber,40% Filler by Weight		
Appearance	Colors Available		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.23	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.30	%	ASTM D955
Water Absorption (24 hr)	0.030	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	77		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	42.1	MPa	ASTM D638
Tensile Elongation (Break)	7.0	%	ASTM D638
Flexural Modulus	5170	MPa	ASTM D790
Flexural Strength	62.7	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	110	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	590	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	129	°C	
1.8 MPa, Unannealed	121	°C	
CLTE - Flow	4.9E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value		Test Method
Flame Rating (1.50 mm)	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	76.7	°C	
Drying Time	2.0 to 3.0	hr	
Rear Temperature	232 to 260	°C	
Middle Temperature	232 to 260	°C	
Front Temperature	232 to 260	°C	
Processing (Melt) Temp	218 to 246	°C	

Mold Temperature	26.7 to 48.9	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	30 to 60	rpm

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Recommended distributors for this material

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