

HiFill® PES GM20 WT139

Techmer Polymer Modifiers - *Polyethersulfone*

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Milled Glass Fiber, 20% Filler by Weight
Appearance	• Colors Available • White
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)	2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.40	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	19300	psi	ASTM D638
Tensile Elongation (Break)	2.9	%	ASTM D638
Flexural Modulus	800000	psi	ASTM D790
Flexural Strength	27000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	1.4	ft·lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	98		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	405	°F	ASTM D648
CLTE - Flow	1.8E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	460	V/mil	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	290	°F
Drying Time	2.0 to 3.0	hr
Rear Temperature	650 to 735	°F
Middle Temperature	650 to 735	°F
Front Temperature	650 to 735	°F
Processing (Melt) Temp	630 to 730	°F
Mold Temperature	280 to 325	°F
Back Pressure	50.0 to 100	psi
Screw Speed	50 to 100	rpm

