

HiFill FR® PBT FR-S

Techmer Polymer Modifiers - *Polybutylene Terephthalate*

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Features	• Flame Retardant • Non-Blooming
Appearance	• Colors Available
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density / Specific Gravity	1.42		ASTM D792
Molding Shrinkage - Flow (0.125 in)	0.025	in/in	ASTM D955
Water Absorption (24 hr)	0.080	%	ASTM D570
Mechanical			
Tensile Strength	8200	psi	ASTM D638
Tensile Elongation (Yield)	75	%	ASTM D638
Flexural Modulus	380000	psi	ASTM D790
Flexural Strength (Yield)	14700	psi	ASTM D790
Impact			
Notched Izod Impact	0.70	ft·lb/in	ASTM D256
Hardness			
Rockwell Hardness (R-Scale)	120		ASTM D785
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	160	°F	ASTM D648
CLTE - Flow	4.0E-5	in/in/°F	ASTM D696
Electrical			
Surface Resistivity	1.0E+14	ohms	ASTM D257
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength (Method A (Short-Time))	460	V/mil	ASTM D149
Flammability			
Flame Rating (0.06 in)	V-0		UL 94

Processing Information

	Nominal Value	Unit
Injection		
Drying Temperature	250	°F
Drying Time	4.0	hr
Rear Temperature	450 to 525	°F
Middle Temperature	450 to 525	°F
Front Temperature	450 to 525	°F
Processing (Melt) Temp	440 to 500	°F
Mold Temperature	140 to 180	°F
Back Pressure	50.0 to 100	psi
Screw Speed	30 to 60	rpm

