

HiFill FR® PC 1003 FR-NR UV

Techmer Polymer Modifiers - *Polycarbonate*

General Information

General

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

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.19		ASTM D792
Molding Shrinkage - Flow (0.125 in)	6.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.14	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	8400	psi	ASTM D638
Tensile Elongation (Yield)	5.0	%	ASTM D638
Flexural Modulus	300000	psi	ASTM D790
Flexural Strength	12000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°F, 0.125 in	8.0	ft·lb/in	
73°F, 0.125 in	12	ft·lb/in	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	114		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	270	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	250	°F	ASTM D648
CLTE - Flow	3.8E-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))	380	V/mil	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	4.0	hr
Rear Temperature	540 to 560	°F
Middle Temperature	540 to 560	°F
Front Temperature	540 to 560	°F
Processing (Melt) Temp	510 to 560	°F
Mold Temperature	180 to 250	°F
Back Pressure	50.0 to 100	psi
Screw Speed	30 to 60	rpm

