

HiFill FR® PC 1003 UV

Polycarbonate
Techmer Engineered Solutions

Message:

HiFill FR® PC 1003 UV is a Polycarbonate (PC) product. It can be processed by injection molding and is available in North America.

Characteristics include:

Flame Rated
Flame Retardant

General Information			
Features	Flame Retardant		
Appearance	Colors Available		
	Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.19	g/cm ³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.60	%	ASTM D955
Water Absorption (24 hr)	0.14	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	114		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	59.3	MPa	ASTM D638
Tensile Elongation (Yield)	140	%	ASTM D638
Flexural Modulus	2070	MPa	ASTM D790
Flexural Strength	82.7	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°C, 3.18 mm	320	J/m	
23°C, 3.18 mm	850	J/m	
Unnotched Izod Impact			ASTM D256
-40°C, 6.35 mm	430	J/m	
23°C, 6.35 mm	No Break		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	132	°C	
1.8 MPa, Unannealed	127	°C	
CLTE - Flow	6.8E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+17	ohms · cm	ASTM D257

Dielectric Strength ¹	15	kV/mm	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Rear Temperature	282 to 293	°C	
Middle Temperature	282 to 293	°C	
Front Temperature	282 to 293	°C	
Processing (Melt) Temp	266 to 293	°C	
Mold Temperature	82.2 to 121	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	Method A (Short-Time)		

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