Electrafil® PC CF20 FR IM BK

Techmer Polymer Modifiers - *Polycarbonate*

General Information

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight		
Additive	• Impact Modifier		
Features	• Flame Retardant	• High Impact Resistance	• Statically Conductive
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.30		ASTM D792
Molding Shrinkage - Flow (0.125 in)	2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.090	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	20000	psi	ASTM D638
Tensile Elongation (Break)	2.0	%	ASTM D638
Flexural Modulus	1.20E+6	psi	ASTM D790
Flexural Strength	26000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.125 in)	2.4	ft·lb/in	ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	118		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	300	°F	ASTM D648
CLTE - Flow	3.0E-5	in/in/°F	ASTM D696
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+7	ohms	ASTM D257
Volume Resistivity	1.0E+7	ohms·cm	ASTM D257
Shielding Effectiveness	10 to 30	dB	ASTM D4935
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.08 in)	V-0		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	575 to 600	°F
Middle Temperature	600 to 630	°F
Front Temperature	590 to 620	°F
Nozzle Temperature	590 to 620	°F
Processing (Melt) Temp	580 to 620	°F
Mold Temperature	160 to 190	°F
Injection Rate	Moderate	
Back Pressure	0.00 to 100	psi

Injection Notes

Screw Speed: Medium
Recommendations for Molding and Tool Conditions: Well vented mold
Moisture Content, as received: Product is packaged at 0.2% or less.

Notes

[1] Typical properties: these are not to be construed as specifications.