

**Electrafil® PA6 CF20 BK**

 Techmer Polymer Modifiers - *Polyamide 6*
**General Information**
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Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight
Additive	• Heat Stabilizer      • Lubricant
Features	• Conductive      • Heat Stabilized      • Lubricated
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

**Properties <sup>1</sup>**

	Nominal Value	Unit	Test Method
<b>Physical</b>			
Density / Specific Gravity	1.22		ASTM D792
Molding Shrinkage - Flow (0.125 in)	3.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.90	%	ASTM D570
<b>Mechanical</b>			
Tensile Strength (Break)	27000	psi	ASTM D638
Tensile Elongation (Break)	1.5	%	ASTM D638
Flexural Modulus	2.00E+6	psi	ASTM D790
Flexural Strength	40000	psi	ASTM D790
<b>Impact</b>			
Notched Izod Impact (73°F, 0.125 in)	2.0	ft·lb/in	ASTM D256
<b>Hardness</b>			
Rockwell Hardness (R-Scale)	115		ASTM D785
<b>Thermal</b>			
Deflection Temperature Under Load (66 psi, Unannealed)	420	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	400	°F	ASTM D648
CLTE - Flow	1.1E-5	in/in/°F	ASTM D696
<b>Electrical</b>			
Surface Resistivity	1.0 to 1.0E+3	ohms	ASTM D257
Volume Resistivity	1.0 to 1.0E+3	ohms·cm	ASTM D257
<b>Additional Information</b>			
TPCI #	9738102		

**Processing Information**

	Nominal Value	Unit
<b>Injection</b>		
Drying Temperature	180	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	510 to 530	°F
Middle Temperature	530 to 550	°F
Front Temperature	520 to 540	°F
Nozzle Temperature	520 to 540	°F
Processing (Melt) Temp	530 to 550	°F
Mold Temperature	175 to 220	°F
Injection Rate	Slow-Moderate	
Back Pressure	0.00 to 50.0	psi

**Injection Notes**
