

Electrafil® PA6/6 CF20 BK

Techmer Polymer Modifiers - Polyamide 66

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Carbon Fiber, 20% Filler by Weight
Additive	• Lubricant
Features	• Conductive • Lubricated
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.23		ASTM D792
Molding Shrinkage - Flow (0.125 in)	5.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.85	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	26000	psi	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	2.35E+6	psi	ASTM D790
Flexural Strength	40000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	1.2	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)	498	°F	ASTM D648
CLTE - Flow	3.8E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+2 to 1.0E+6	ohms	ASTM D257
Volume Resistivity	1.0E+2 to 1.0E+6	ohms·cm	ASTM D257

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	540 to 560	°F
Middle Temperature	550 to 570	°F
Front Temperature	530 to 550	°F
Nozzle Temperature	520 to 580	°F
Processing (Melt) Temp	540 to 580	°F
Mold Temperature	175 to 220	°F
Injection Rate	Slow-Moderate	
Back Pressure	0.00 to 50.0	psi

Injection Notes

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

