

# Electrafil® PA6/6 CF20 BK

Polyamide 66  
Techmer Engineered Solutions

Message:

Electrafil® PA6/6 CF20 BK is a polyamide 66 (nylon 66) product, which contains a 20% carbon fiber reinforced material. It can be processed by injection molding and is available in North America.

Features include:

Conductivity

Lubrication

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 20% filler by weight		
Additive	Lubricant		
Features	Conductivity		
	Lubrication		
Appearance	Black		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.23	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.50	%	ASTM D955
Water Absorption (24 hr)	0.85	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break)	179	MPa	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	16200	MPa	ASTM D790
Flexural Strength	276	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	64	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	259	°C	ASTM D648
CLTE - Flow	6.8E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+2 - 1.0E+6	ohms	ASTM D257
Volume Resistivity	1.0E+2 - 1.0E+6	ohms · cm	ASTM D257
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	2.0 - 4.0	hr	

Suggested Max Moisture	0.10	%
Rear Temperature	282 - 293	°C
Middle Temperature	288 - 299	°C
Front Temperature	277 - 288	°C
Nozzle Temperature	271 - 304	°C
Processing (Melt) Temp	282 - 304	°C
Mold Temperature	79.4 - 104	°C
Injection Rate	Slow-Moderate	
Back Pressure	0.00 - 0.345	MPa

#### Injection instructions

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

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#### Recommended distributors for this material

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