

# Electrafil® PC CF20 FR IM BK

Polycarbonate

Techmer Engineered Solutions

## Message:

Electrafil® PC CF20 FR IM BK is a polycarbonate (PC) product that contains 20% carbon fiber reinforcement. It can be processed by injection molding and is available in North America.

Features include:

flame retardant/rated flame

Flame Retardant

Impact modification

Conductivity

Impact resistance

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 20% filler by weight		
Additive	Impact modifier		
Features	Static conduction		
	Impact resistance, high		
	Flame retardancy		
Appearance	Black		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.30	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.20	%	ASTM D955
Water Absorption (24 hr)	0.090	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	138	MPa	ASTM D638
Tensile Elongation (Break)	2.0	%	ASTM D638
Flexural Modulus	8270	MPa	ASTM D790
Flexural Strength	179	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	130	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	149	°C	ASTM D648
CLTE - Flow	5.4E-5	cm/cm/°C	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 - 30	dB	ASTM D4935
Flammability	Nominal Value	Unit	Test Method
Flame Rating (2.01 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	302 - 316	°C	
Middle Temperature	316 - 332	°C	
Front Temperature	310 - 327	°C	
Nozzle Temperature	310 - 327	°C	
Processing (Melt) Temp	304 - 327	°C	
Mold Temperature	71.1 - 87.8	°C	
Injection Rate	Moderate		
Back Pressure	0.00 - 0.689	MPa	
Injection instructions			

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

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

