

# Electrafil® PC 04003 FR BK

Polycarbonate

Techmer Engineered Solutions

## Message:

Electrafil® PC 04003 FR BK is a polycarbonate (PC) product containing stainless steel fiber. It can be processed by injection molding and is available in North America.

Features include:

flame retardant/rated flame

Flame Retardant

Electromagnetic shielding (EMI)

General Information			
Filler / Reinforcement	Stainless steel fiber		
Features	Electromagnetic shielding (EMI)		
	Flame retardancy		
Appearance	Black		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.29	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.20	%	ASTM D955
Water Absorption (24 hr)	0.10	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	51.7	MPa	ASTM D638
Tensile Elongation (Yield)	6.0	%	ASTM D638
Flexural Modulus	2610	MPa	ASTM D790
Flexural Strength	79.3	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	110	J/m	ASTM D256
Unnotched Izod Impact (3.18 mm)	440	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	127	°C	ASTM D648
CLTE - Flow	6.3E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0 - 1.0E+3	ohms	ASTM D257
Volume Resistivity	1.0 - 1.0E+3	ohms · cm	ASTM D257
Static Decay		sec	FTMS 101B
Shielding Effectiveness	55	dB	ASTM D4935
TPCI #	9691124		
Flammability	Nominal Value	Unit	Test Method

Flame Rating (1.50 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: MediumRecommendations for Molding and Tool Conditions: Well vented moldMoisture Content, as received: Product is packaged at 0.2% or less.

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#### 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

