# Electrafil® PC 04006 FR BK

## Polycarbonate

## **Techmer Engineered Solutions**

#### Message:

Electrafil® PC 04006 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	1.27	g/cm³	ASTM D792	
Molding Shrinkage - Flow (3.18 mm)	0.35	%	ASTM D955	
Water Absorption (24 hr)	0.12	%	ASTM D570	
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness (R-Scale)	124		ASTM D785	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength (Yield)	69.6	MPa	ASTM D638	
Tensile Elongation (Yield)	2.0	%	ASTM D638	
Flexural Modulus	3590	MPa	ASTM D790	
Flexural Strength	104	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact (23°C, 3.18 mm)	110	J/m	ASTM D256	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load			ASTM D648	
0.45 MPa, not annealed	143	°C	ASTM D648	
1.8 MPa, not annealed	138	°C	ASTM D648	
CLTE - Flow	3.2E-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	50	dB	ASTM D4935	

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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# 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

