

Electrafil® PC 04009 FR BK

Polycarbonate

Techmer Engineered Solutions

Message:

Electrafil® PC 04009 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	1.41	g/cm ³	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)	74.5	MPa	ASTM D638
Tensile Elongation (Yield)	2.0	%	ASTM D638
Flexural Modulus	3930	MPa	ASTM D790
Flexural Strength	114	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	53	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	146	°C	ASTM D648
1.8 MPa, not annealed	141	°C	ASTM D648
CLTE - Flow	3.2E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+4 - 1.0E+6	ohms	ASTM D257
Volume Resistivity	10 - 1.0E+3	ohms · cm	ASTM D257
Static Decay		sec	FTMS 101B
Shielding Effectiveness	45	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: Medium 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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