

# Electrafil® J-1/CF/40

Polyamide 66

Techmer Engineered Solutions

## Message:

Electrafil® J-1/CF/40 is a polyamide 66 (nylon 66) product, which contains a 40% carbon fiber reinforced material. It can be processed by injection molding and is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. Electrafil® The application fields of J-1/CF/40 include packaging, engineering/industrial accessories, automobile industry, commercial/office supplies and conveyor belts.

Features include:

flame retardant/rated flame

ROHS certification

Conductivity

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 40% filler by weight		
Features	Conductivity		
	Antistatic property		
Uses	Packaging		
	Bushing		
	Conveyor accessories		
	Automotive Electronics		
	Business equipment		
RoHS Compliance	RoHS compliance		
Appearance	Natural color		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.33	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow	0.10	%	ASTM D955
Water Absorption (24 hr)	0.60	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	28300	MPa	ASTM D638
Tensile Strength (23°C)	276	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	1.8	%	ASTM D638
Flexural Modulus (23°C)	23400	MPa	ASTM D790
Flexural Strength (23°C)	407	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	96	J/m	ASTM D256
Unnotched Izod Impact (23°C, 3.18 mm)	800	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648

0.45 MPa, not annealed	263	°C	ASTM D648
1.8 MPa, not annealed	257	°C	ASTM D648
CLTE - Flow	1.4E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	55	ohms	ASTM D257
Volume Resistivity	5.5	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.59 mm)	HB		UL 94
Additional Information			
Surface Resistivity, ASTM D4496: 10-100 ohmsVolume Resistivity, ASTM C611: 1-10 ohm-cmShielding Effectiveness, ES7-83, 1GHz: 30-40 dB			
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	277 - 288	°C	
Middle Temperature	288 - 299	°C	
Front Temperature	282 - 293	°C	
Nozzle Temperature	282 - 288	°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: SlowRecommendations 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

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