

Electrafil® J-50/CF/10

Techmer Polymer Modifiers - Polycarbonate

Tuesday, April 23, 2019

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight		
Features	• Antistatic	• Electrically Conductive	
Uses	• Automotive Electronics • Bushings	• Business Equipment • Conveyor Parts	• Packaging
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.24	g/cm ³	ASTM D792
Molding Shrinkage - Flow (3.18 mm)	0.15	%	ASTM D955
Water Absorption (24 hr)	0.15	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	7580	MPa	ASTM D638
Tensile Strength (23°C)	103	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	3.0	%	ASTM D638
Flexural Modulus (23°C)	7580	MPa	ASTM D790
Flexural Strength (23°C)	165	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 3.18 mm)	59	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	146	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed	142	°C	ASTM D648
CLTE - Flow	3.2E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	5.5E+5	ohms	ASTM D257
Volume Resistivity	5.5E+3	ohms·cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.6 mm)	V-1		UL 94

Additional Information

Surface Resistivity, ASTM D257: 1E5-1E6 ohms
Volume Resistivity, ASTM C611: 1E3-1E4 ohm-cm

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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	121	°C
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	302 to 316	°C
Middle Temperature	316 to 332	°C
Front Temperature	310 to 327	°C
Nozzle Temperature	310 to 327	°C
Processing (Melt) Temp	304 to 327	°C
Mold Temperature	71 to 88	°C
Injection Rate	Moderate	
Back Pressure	0.00 to 0.689	MPa

Injection Notes

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

Notes

¹ Typical properties: these are not to be construed as specifications.