Electrafil® J-50/CF/10

Techmer Engineered Solutions - *Polycarbonate*

Units English

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
Specific Gravity	1.24		ASTM D792
Molding Shrinkage - Flow (0.125 in)	1.5E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.15	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	1.10E+6	psi	ASTM D638
Tensile Strength (73°F)	15000	psi	ASTM D638
Tensile Elongation (Break, 73°F)	3.0	%	ASTM D638
Flexural Modulus (73°F)	1.10E+6	psi	ASTM D790
Flexural Strength (73°F)	24000	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F, 0.125 in)	1.1	ft·lb/in	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	295	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	288	°F	ASTM D648
CLTE - Flow	1.8E-5	in/in/°F	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 (0.0625 in)	V-1		UL 94

Additional Information

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

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	250	°F
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	575 to 600	°F
Middle Temperature	600 to 630	°F
Front Temperature	590 to 620	°F
Nozzle Temperature	590 to 620	°F
Processing (Melt) Temp	580 to 620	°F
Mold Temperature	160 to 190	°F
Injection Rate	Moderate	
Back Pressure	0.00 to 100	psi

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.

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Nominal ValueThe information presented on this datasheet was acquired by UL Prospector from the producer of the material. UL Prospector makes substantial efforts to assure the accuracy of this data. However, UL Prospector assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.