

Electrafil® J-1200/CF/40

Techmer Polymer Modifiers - Acrylonitrile Butadiene Styrene

General Information

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Carbon Fiber, 40% Filler by Weight
Uses	• Automotive Electronics • Business Equipment • Packaging • Bushings • Conveyor Parts
RoHS Compliance	• RoHS Compliant
Appearance	• Natural Color
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.24		ASTM D792
Molding Shrinkage - Flow (0.125 in)	5.0E-4	in/in	ASTM D955
Water Absorption (24 hr)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Break, 73°F)	16000	psi	ASTM D638
Tensile Elongation (Break, 73°F)	1.0	%	ASTM D638
Flexural Modulus (73°F)	2.30E+6	psi	ASTM D790
Flexural Strength (Break, 73°F)	22000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	0.70	ft-lb/in	ASTM D256
Unnotched Izod Impact (73°F, 0.125 in)	4.0	ft-lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	220	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	216	°F	ASTM D648
CLTE - Flow	6.0E-6	in/in/°F	ASTM D696
Thermal Conductivity	4.5	Btu-in/hr/ft ² /°F	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	5.0	ohms	ASTM D257
Volume Resistivity	5.0	ohms-cm	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

Additional Information

Volume Resistivity, ASTM C611: 1-10 ohm-cm

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	170 to 190	°F
Drying Time	2.0 to 16	hr
Rear Temperature	420 to 450	°F
Middle Temperature	430 to 460	°F
Front Temperature	410 to 430	°F
Nozzle Temperature	390 to 430	°F
Processing (Melt) Temp	450 to 500	°F
Mold Temperature	160 to 190	°F

