

Electrafil® ABS 03009

Techmer Polymer Modifiers - *Acrylonitrile Butadiene Styrene*

General Information

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Filler
Features	• Conductive • Electromagnetic Shielding (EMI) • Radio Frequency Shielding (RFI)
Appearance	• Colors Available
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.14		ASTM D792
Molding Shrinkage - Flow (0.125 in)	5.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.28	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	7300	psi	ASTM D638
Tensile Elongation (Yield)	4.0	%	ASTM D638
Flexural Modulus	480000	psi	ASTM D790
Flexural Strength	13000	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	1.1	ft-lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	4.5	ft-lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	215	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	205	°F	ASTM D648
CLTE - Flow	4.7E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0 to 1.0E+2	ohms	ASTM D257
Volume Resistivity	1.0 to 1.0E+2	ohms·cm	ASTM D257
Shielding Effectiveness ²	49	dB	ASTM D149
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	HB		UL 94

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

Notes

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

² 30 to 1000 MHz

