

Electrafil® PC 04003 FR BK

Techmer Polymer Modifiers - Polycarbonate

General Information
General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Stainless Steel Fiber
Features	• Electromagnetic Shielding (EMI) • Flame Retardant
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.29		ASTM D792
Molding Shrinkage - Flow (0.125 in)	2.0E-3	in/in	ASTM D955
Water Absorption (24 hr)	0.10	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	7500	psi	ASTM D638
Tensile Elongation (Yield)	6.0	%	ASTM D638
Flexural Modulus	379000	psi	ASTM D790
Flexural Strength	11500	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F, 0.125 in)	2.0	ft·lb/in	ASTM D256
Unnotched Izod Impact (0.125 in)	8.3	ft·lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	260	°F	ASTM D648
CLTE - Flow	3.5E-5	in/in/°F	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0 to 1.0E+3	ohms	ASTM D257
Volume Resistivity	1.0 to 1.0E+3	ohms·cm	ASTM D257
Shielding Effectiveness	55	dB	ASTM D4935
Static Decay	< 0.1	sec	FTMS 101B
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-0		UL 94
Additional Information	Nominal Value	Unit	Test Method
TPCI #	9691124		

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.

