VECTRA® A240

Liquid Crystal Polymer

40% carbon fiber reinforced grade with excellent electrical conductivity and exceptional stiffness.

Product information

Resin Identification	LCP-CF40		ISO 1043
Part Marking Code	>LCP-CF40<		ISO 11469

Rheological properties

Molding shrinkage, parallel	0	%	ISO 294-4, 2577
Molding shrinkage, normal	0.1	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	5.08E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	26800	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	0.7	%	ISO 527-1/-2
Flexural modulus	5.08E6	psi	ISO 178
Flexural strength	42800	psi	ISO 178
Charpy impact strength, 23°C	7.14	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	5.23	ftlb/in²	ISO 179/1eA
Hardness, Rockwell, M-scale	83		ISO 2039-2

Thermal properties

Melting temperature, 10°C/min	536	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	451	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.01	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.0333	E-4/°F	ISO 11359-1/-2

Electrical properties

Volume resistivity	4	Ohm.m	IEC 62631-3-1
Surface resistivity	590	Ohm	IEC 62631-3-2

Physical/Other properties

Humidity absorption, 2mm	0.06	%	Sim. to ISO 62
Density	0.0547	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	302	°F
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01	%
Melt Temperature Optimum	554	°F
Min. melt temperature	536	°F
Max. melt temperature	599	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	212	°F

Revised: 2025-03-20 Source: Celanese Materials Database

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Min. mold temperature	176 °F
Max. mold temperature	248 °F
Hold pressure range	7250 - 21800 psi
Back pressure	435 psi
Ejection temperature	442 °F

Characteristics

Processing	Injection Molding
Special characteristics	Increased electrical conductivity, Anti-static, Static dissipative, Flame retardant

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