VECTRA® J540

Liquid Crystal Polymer

40% Mineral filled, high heat resistance. Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant

Product information

Resin Identification	LCP-MD40	ISO 1043
Part Marking Code	>LCP-MD40<	ISO 11469

Rheological properties

Molding shrinkage, parallel	0.1	%	ISO 294-4, 2577
Molding shrinkage, normal	0.4	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	1.31E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	14500	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	3	%	ISO 527-1/-2
Flexural modulus	1.45E6	psi	ISO 178
Flexural strength	17400	psi	ISO 178
Charpy notched impact strength, 23°C	1.9	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	2.38	ftlb/in²	ISO 180/1A

Thermal properties

Melting temperature, 10°C/min	662	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	464	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	541	°F	ISO 75-1/-2

Physical/Other properties

Density	0.0628	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	671	°F
Min. melt temperature	653	°F
Max. melt temperature	698	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	284	°F
Ejection temperature	599	°F

Characteristics

Processing	Injection Molding
Special characteristics	Flame retardant, Heat stabilized or stable to heat, High Flow

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

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Additional information

Processing Notes

Pre-Drying

VECTRA should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be =< - 40° C. The time between drying and processing should be as short as possible.

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