VECTRA® C950

Liquid Crystal Polymer

Vectra C950 is an unreinforced Vectra grade suitable for extrusion
Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant FDA compliant UL-Listing V-0 in natural at 0.81mm thickness per UL 94 flame testing. Relative-Temperature-Index (RTI) according to UL 746B: electrical 240°C, mechanical 220°C. UL = Underwriters Laboratories (USA)

Product information

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

Typical mechanical properties

Tensile modulus	1.19E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	21800	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.7	%	ISO 527-1/-2
Flexural modulus	1.06E6	psi	ISO 178
Flexural strength	21000	psi	ISO 178

Thermal properties

Melting temperature, 10°C/min	608	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	347	°F	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	203	°F	ISO 75-1/-2

Flammability

Burning Behav. at 1.5mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	0.0591	in	IEC 60695-11-10
Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.0315	in	IEC 60695-11-10
UL recognition	yes		UL 94

Physical/Other properties

Density	0.0505	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	626	°F
Min. melt temperature	608	°F
Max. melt temperature	644	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	248	°F
Back pressure	435	psi

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

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Characteristics

Processing	Injection Molding, Film Extrusion, Extrusion
Special characteristics	Light stabilized or stable to light, Heat stabilized or stable to heat, High Flow

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.

Storage

For subsequent storage of the material in the dryer until processed the temperature does not need to be lowered for grades A, B, C, D and V (<= 24 h).

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