

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	8200 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	150 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3.7 %	ISO 527-1/-2
Flexural modulus	7300 MPa	ISO 178
Flexural strength	140 MPa	ISO 178
Poisson's ratio	0.34 ^[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	320 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	175 °C	ISO 75-1/-2
Temperature of deflection under load, 8 MPa	95 °C	ISO 75-1/-2

Flammability

Burning Behav. at 1.5mm nom. thickn.	V-0 class	IEC 60695-11-10
Thickness tested	1.5 mm	IEC 60695-11-10
Burning Behav. at thickness h	V-0 class	IEC 60695-11-10
Thickness tested	0.8 mm	IEC 60695-11-10
UL recognition	yes	UL 94

Physical/Other properties

Density	1400 kg/m ³	ISO 1183
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Injection

Drying Recommended	yes
Drying Temperature	150 °C
Drying Time, Dehumidified Dryer	4 - 6 h
Processing Moisture Content	≤0.01 %
Melt Temperature Optimum	330 °C
Min. melt temperature	320 °C
Max. melt temperature	340 °C
Screw tangential speed	0.2 - 0.3 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	80 °C
Max. mould temperature	120 °C
Back pressure	3 MPa

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Characteristics

Processing	Injection Moulding, Film Extrusion, Extrusion
Delivery form	Pellets
Special characteristics	Light stabilised or stable to light, Heat stabilised 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 $\leq -40^{\circ}\text{C}$. 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 ($\leq 24\text{ h}$).