Celanese
The chemistry inside innovation™

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

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

Typical mechanical properties

Tensile modulus	9000 MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	100 MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	3 %	ISO 527-1/-2
Flexural modulus	10000 MPa	ISO 178
Flexural strength	120 MPa	ISO 178
Charpy notched impact strength, 23°C	4 kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	5 kJ/m²	ISO 180/1A
Poisson's ratio	0.34[C]	

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	350 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	240 °C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	283 °C	ISO 75-1/-2

Physical/Other properties

Density	1740 kg/m³	ISO 1183

Injection

Drying Recommended	yes
Drying Temperature	150 °C
Drying Time, Dehumidified Dryer	4 - 6 h
Processing Moisture Content	≤0.01 %
Melt Temperature Optimum	355 °C
Min. melt temperature	345 °C
Max. melt temperature	370 °C
Screw tangential speed	0.2 - 0.3 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	80 °C
Max. mould temperature	140 °C
Ejection temperature	315 °C

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Processing	Injection Moulding
Additives	Mineral Filler
Special characteristics	Flame retardant, 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 =< - 40° C. The time between drying and processing should be as short as possible.