

VECTRA® E840i LDS

40% Mineral filled Laser Direct Structuring grade.
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 Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant
 UL-Listing V-0 in black at 1.5mm thickness per UL 94 flame testing.
 UL = Underwriters Laboratories (USA)

Rheological properties

Moulding shrinkage range, parallel	0.1 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.5 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	10000 MPa	ISO 527-1/-2
Stress at break, 5mm/min	100 MPa	ISO 527-1/-2
Strain at break, 5mm/min	3 %	ISO 527-1/-2
Flexural Modulus	11000 MPa	ISO 178
Flexural Strength	120 MPa	ISO 178
Charpy notched impact strength, 23°C	4 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	6 kJ/m ²	ISO 180/1A
Izod impact strength, 23°C	33 kJ/m ²	ISO 180/1U

Thermal properties

Melting temperature, 10°C/min	335 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	227 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	12 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	27 E-6/K	ISO 11359-1/-2

Electrical properties

Relative permittivity, 100Hz	4.97	IEC 62631-2-1
Dissipation factor, 100Hz	289 E-4	IEC 62631-2-1
Volume resistivity	2E14 Ohm.m	IEC 62631-3-1
Surface resistivity	2E16 Ohm	IEC 62631-3-2
Electric strength	28 kV/mm	IEC 60243-1

Other properties

Humidity absorption, 2mm	0.004 %	Sim. to ISO 62
Water absorption, 2mm	0.011 %	Sim. to ISO 62
Density	1810 kg/m ³	ISO 1183



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Injection

Drying Temperature	150 °C	
Drying Time, Dehumidified Dryer	6 h	
Processing Moisture Content	0.01 %	
Melt Temperature Optimum	340 °C	Internal
Screw tangential speed	0.17 - 0.18 m/s	
Max. mould temperature	80 - 120 °C	
Injection speed	medium	

Characteristics

Additives	Mineral Filler
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Processing Texts

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.
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