

VECTRA® FIT50

Vectra® FIT 50 is a 30% mineral reinforced liquid crystal polymer for injection molding. It has excellent filling capability and extremely low warpage performance in long and thin wall complicated applications.

Rheological properties

Moulding shrinkage range, parallel	0.3 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.7 %	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	9000 MPa	ISO 527-1/-2
Stress at break, 5mm/min	90 MPa	ISO 527-1/-2
Strain at break, 5mm/min	2 %	ISO 527-1/-2
Flexural Modulus	10000 MPa	ISO 178
Flexural Strength	120 MPa	ISO 178
Charpy impact strength, 23°C	22 kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	2.7 kJ/m ²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	330 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	246 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	275 °C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	11 E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	47 E-6/K	ISO 11359-1/-2
Spec. heat capacity solid	0.87 J/(kg K)	Internal

Flammability

Burning Behav. at thickness h	V-0 class	UL 94
Thickness tested	0.4 mm	UL 94
UL recognition	yes	UL 94

Electrical properties

Dissipation factor, 1GHz	66 E-4	IEC 62631-2-1
Comparative tracking index	150	IEC 60112
Comparative tracking index	PLC 4 PLC	UL 746A
Relative permittivity, printed circuits and boards, 2.5 GHz	4.21	IEC 61189-2-721
Dissipation factor, printed circuits and boards, 2.5 GHz	57 E-4	IEC 61189-2-721

Other properties

Density	1550 kg/m ³	ISO 1183
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Injection

Drying Temperature	150 - 160 °C	
Drying Time, Dehumidified Dryer	4 - 6 h	
Processing Moisture Content	0.01 %	
Melt Temperature Optimum	338 °C	Internal
Max. mould temperature	80 - 120 °C	
Injection speed	very fast	

