

Product Texts

High temperature capability, easiest flow. Suitable where very thin walls are required. Used for broad range of SMT applications, with minimal dimensional change. 30% glass filled. Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant FDA compliant UL-Listing V-0 in natural and black at .2mm thickness per UL 94 flame testing. Relative-Temperature-Index (RTI) according to UL 746B: electrical 240°C, mechanical 240°C at 0.75mm. UL = Underwriters Laboratories (USA)

Flammability at thickness h V-0 -

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	0.1	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	0.4	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	16000	MPa	ISO 527
[C] Stress at break	160	MPa	ISO 527
[C] Strain at break	1.6	%	ISO 527
[C] Charpy impact strength, +23°C	43	kJ/m ²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	38	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	335	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	270	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 8.00 MPa	216	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	195	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	7	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	20	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
[C] Oxygen index	45	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	4	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	3.9	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	100	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	360	E-4	IEC 62631-2-1
[C] Volume resistivity	1E13	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	1E14	Ohm	IEC 62631-3-2
[C] Electric strength	32	kV/mm	IEC 60243-1

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Humidity absorption	0.03	%	Sim. to ISO 62
[C] Density	1610	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Delivery form

Pellets, Black, Natural Color

Special Characteristics

Flame retardant, Light stabilized or stable to light, Heat stabilized or stable to heat

Certifications

Food contact, Food approval FDA 21 CFR

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information**Injection molding**

Vectra resins are well known for their excellent thermal and hydrolytic stability. In order to ensure these properties are optimum, the resin should be dried correctly prior to processing. Vectra Ei-grades and Vectra V143XL should be dried at 150°C for a minimum of 6 hours or at 170°C for a minimum of 4 hours in a desiccant dryer.

A three-zone screw evenly divided into feed, compression, and metering zones is preferred. A higher percentage of feed flights may be needed for smaller machines: 1/2 feed, 1/4 compression, 1/4 metering.

Vectra LCPs are shear thinning, their melt viscosity decreases quickly as shear rate increases. For parts that are difficult to fill, the molder can increase the injection velocity to improve melt flow.