

Product Texts

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 and black at 0.42mm thickness per UL 94 flame testing. Relative-Temperature-Index (RTI) according to UL 746B: electrical 240°C, mechanical 220°C. UL = Underwriters Laboratories (USA)

Flammability at thickness h V-0 -

Processing/Physical Characteristics **Value** **Unit** **Test Standard**

ISO Data

^[C] Molding shrinkage, normal	0.7	%	ISO 294-4, 2577
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[C]: CAMPUS

Mechanical properties **Value** **Unit** **Test Standard**

ISO Data

^[C] Tensile Modulus	7800	MPa	ISO 527
^[C] Stress at break	148	MPa	ISO 527
^[C] Strain at break	5.7	%	ISO 527
^[C] Charpy impact strength, +23°C	267	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	53	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	95	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties **Value** **Unit** **Test Standard**

ISO Data

^[C] Melting temperature, 10°C/min	280	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	193	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 8.00 MPa	94	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	145	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	-2.4	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	81	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at thickness h	V-0	class	IEC 60695-11-10

[C]: CAMPUS

Electrical properties **Value** **Unit** **Test Standard**

ISO Data

^[C] Relative permittivity, 100Hz	3.2	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	159	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	200	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	47	kV/mm	IEC 60243-1

[C]: CAMPUS

Other properties **Value** **Unit** **Test Standard**

^[C] Water absorption	0.006	%	Sim. to ISO 62
^[C] Humidity absorption	0.003	%	Sim. to ISO 62
^[C] Density	1400	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics

Processing

Injection Molding, Film Extrusion, Other Extrusion

Certifications

Food contact, Food approval FDA 21 CFR

Delivery form

Pellets, Black, Natural Color

Regional Availability

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

Special Characteristics

Flame retardant

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 A-grades should be dried at 150 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.