VECTRA® A230

LCP-CF30 Celanese

Product Texts

Exceptional stiffness. Electrically conductive. 30% carbon fiber reinforced. Chemical abbreviation according to ISO 1043-1 : LCP
Inherently flame retardant UL-Listing V-0 at 0.43mm thickness per UL 94 flame testing. Relative-Temperature-Index (RTI) according to UL 746B: electrical 130°C, mechanical 130°C. 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	**0.3**	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**23500**	MPa	ISO 527
[C] Stress at break	**149**	MPa	ISO 527
[C] Strain at break	**1.1**	%	ISO 527
[C] Charpy impact strength, +23°C	**13**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**7**	kJ/m²	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	**233**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**250**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**179**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**2**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**6**	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] Volume resistivity	**1**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	**10**	Ohm	IEC 62631-3-2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Humidity absorption	**0.06**	%	Sim. to ISO 62
[C] Density	**1500**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Special Characteristics
Increased electrical conductivity, Anti-static, Flame retardant, Light stabilized or stable to light

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 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. To prevent thermal decomposition, off-gassing, and pressure build-up in the barrel, melt temperatures should not exceed 330°C.