VECTRA® E830IPD

Liquid Crystal Polymer

30% glass filled Platable grade. Chemical abbreviation according to ISO 1043-1 : LCP Inherently flame retardant.

Product information

Resin Identification	LCP-GF30	ISO 1043
Part Marking Code	>LCP-GF30<	ISO 11469

Typical mechanical properties

Tensile modulus	2.18E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	20300	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	1.7	%	ISO 527-1/-2
Flexural modulus	2.03E6	psi	ISO 178
Flexural strength	29000	psi	ISO 178
Charpy notched impact strength, 23°C	14.3	ftlb/in²	ISO 179/1eA
Izod notched impact strength, 23°C	9.51	ftlb/in²	ISO 180/1A

Thermal properties

Melting temperature, 10°C/min	626	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	473	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.02[1]	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.328[1]	E-4/°F	ISO 11359-1/-2

[1]: Temperature range: -40°C to 120°C

Physical/Other properties

Density	0.0578	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	338	°F
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01	%
Melt Temperature Optimum	653	°F
Min. melt temperature	644	°F
Max. melt temperature	662	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	248	°F

Characteristics

Processing	Injection Molding
Special characteristics	Flame retardant, Platable, Heat stabilized or stable to heat, High Flow, Lead-free soldering resistant

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Additional information

Processing Notes

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 =< - 40° C. The time between drying and processing should be as short as possible.

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