ZENITE® SEA10N

Liquid Crystal Polymer

ZENITE SEA 10 N is a 30% mineral filled grade. It offers excellent antistatic property, surface appearance, low warpage, and excellent dimensional stability. Application for this grade is compact camera module, and other thin, small electronic parts.

Product information

Resin Identification	LCP-MD30	ISO 1043
Part Marking Code	>LCP-MD30<	ISO 11469

Rheological properties

Molding shrinkage, parallel	0.1	%	ISO 294-4, 2577
Molding shrinkage, normal	0.6	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	1.89E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	18900	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.3	%	ISO 527-1/-2
Flexural modulus	1.89E6	psi	ISO 178
Flexural strength	21800	psi	ISO 178
Flexural strain at failure	2.3	%	ISO 178
Charpy notched impact strength, 23°C	4.76	ftlb/in²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	626	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	464	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.06	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.333	E-4/°F	ISO 11359-1/-2
Thermal conductivity, flow	2.44	W/(m K)	ISO 22007-2
Thermal conductivity, crossflow	0.9	W/(m K)	ISO 22007-2
Thermal conductivity, through plane	0.48	W/(m K)	ISO 22007-2
Effective thermal diffusivity, flow	0.000001	m²/s	ISO 22007-4
Effective thermal diffusivity, crossflow	4E-7	m²/s	ISO 22007-4
Effective thermal diffusivity, through plane	2.1E-7	m²/s	ISO 22007-4
Specific heat capacity of melt	1.38	J/(kg K)	ISO 22007-4

Electrical properties

Volume resistivity	2.3E12	Ohm.m	IEC 62631-3-1
Surface resistivity	9.8E11	Ohm	IEC 62631-3-2
Electric strength	965	kV/in	IEC 60243-1

Physical/Other properties

Humidity absorption, 2mm	0.02	%	Sim. to ISO 62
Density	0.0592	lb/in³	ISO 1183

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Injection

Drying Recommended	yes	
Drying Temperature	302	°F
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01	%
Melt Temperature Optimum	644	°F
Min. melt temperature	635	°F
Max. melt temperature	653	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	284	°F
Ejection temperature	478	°F

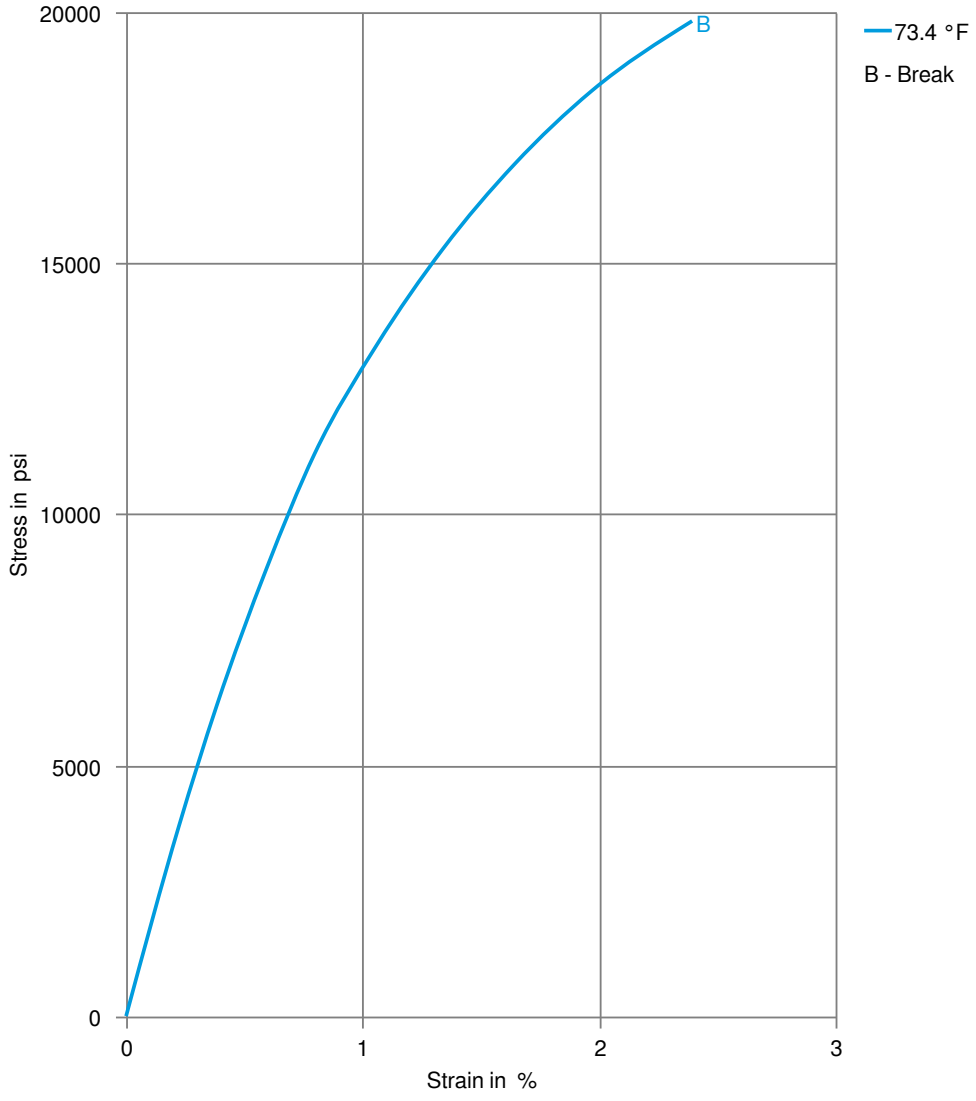
Characteristics

Processing	Injection Molding
Special characteristics	Anti-static, Static dissipative, Flame retardant, Heat stabilized or stable to heat, Specialty appearance, High Flow, Low Warpage, Lead-free soldering resistant

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Stress-strain

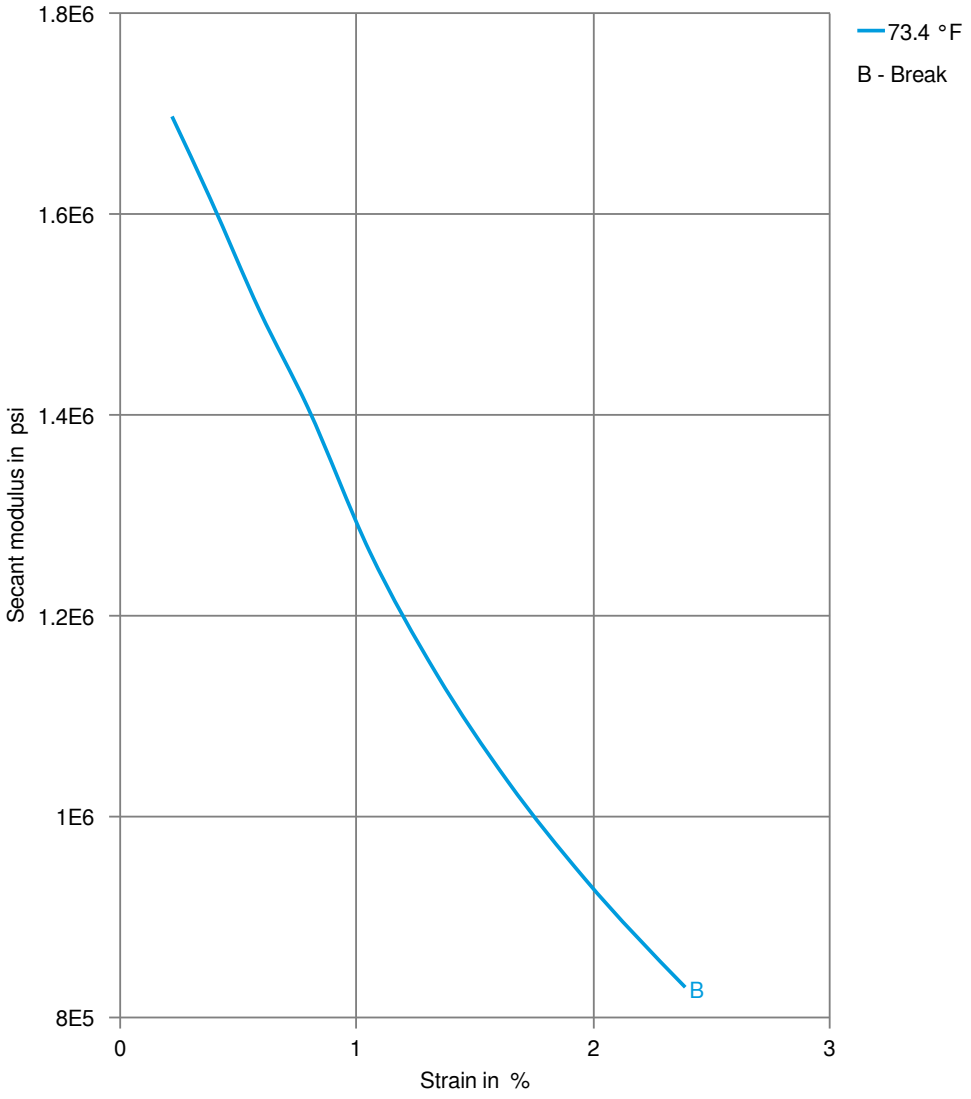


Revised: 2025-03-20 Source: Celanese Materials Database

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Secant modulus-strain



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