ZENITE® SEA30B

Liquid Crystal Polymer

Zenite® SEA30B is a 40% mineral filled grade. This grade offers excellent 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-MD40	ISO 1043
Part Marking Code	>LCP-MD40<	ISO 11469

Rheological properties

Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	1.02E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	14500	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	4.6	%	ISO 527-1/-2
Flexural modulus	1.02E6	psi	ISO 178
Flexural strength	14500	psi	ISO 178
Charpy impact strength, 23°C	21.4	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	3.33	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	428	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	504	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.11[1]	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.517[1]	E-4/°F	ISO 11359-1/-2
Thermal conductivity, flow	1.46	W/(m K)	ISO 22007-2
Thermal conductivity, crossflow	0.64	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	3.1E-7	m²/s	ISO 22007-4
Effective thermal diffusivity, through plane	2.3E-7	m²/s	ISO 22007-4
Specific heat capacity of melt	1.11	J/(kg K)	ISO 22007-4

[1]: Temperature range: 20°C to 180°C

Electrical properties

Relative permittivity, 2GHz	4.99[OT, 2]		IEC 61189-2-721
Dissipation factor, 2GHz	145[OT, 2]	E-4	IEC 61189-2-721
Volume resistivity	2.5E16	Ohm.m	IEC 62631-3-1
Surface resistivity	3.8E14	Ohm	IEC 62631-3-2

[OT]: One time tested

[2]: Black color, tested at 1.9GHz

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Physical/Other properties

Density	0.0668	lb/in³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	302	°F
Drying Time, Dehumidified Dryer	4 - 6	h
Processing Moisture Content	≤0.01	%
Melt Temperature Optimum	635	°F
Min. melt temperature	635	°F
Max. melt temperature	653	°F
Max. screw tangential speed	0.2 - 0.3	m/s
Mold Temperature Optimum	248	°F
Min. mold temperature	212	°F
Max. mold temperature	284	°F
Ejection temperature	446	°F

Characteristics

Processing	Injection Molding
Special characteristics	Flame retardant, Heat stabilized or stable to heat, Specialty appearance, High Flow, Low Warpage

Additional information

Processing Notes

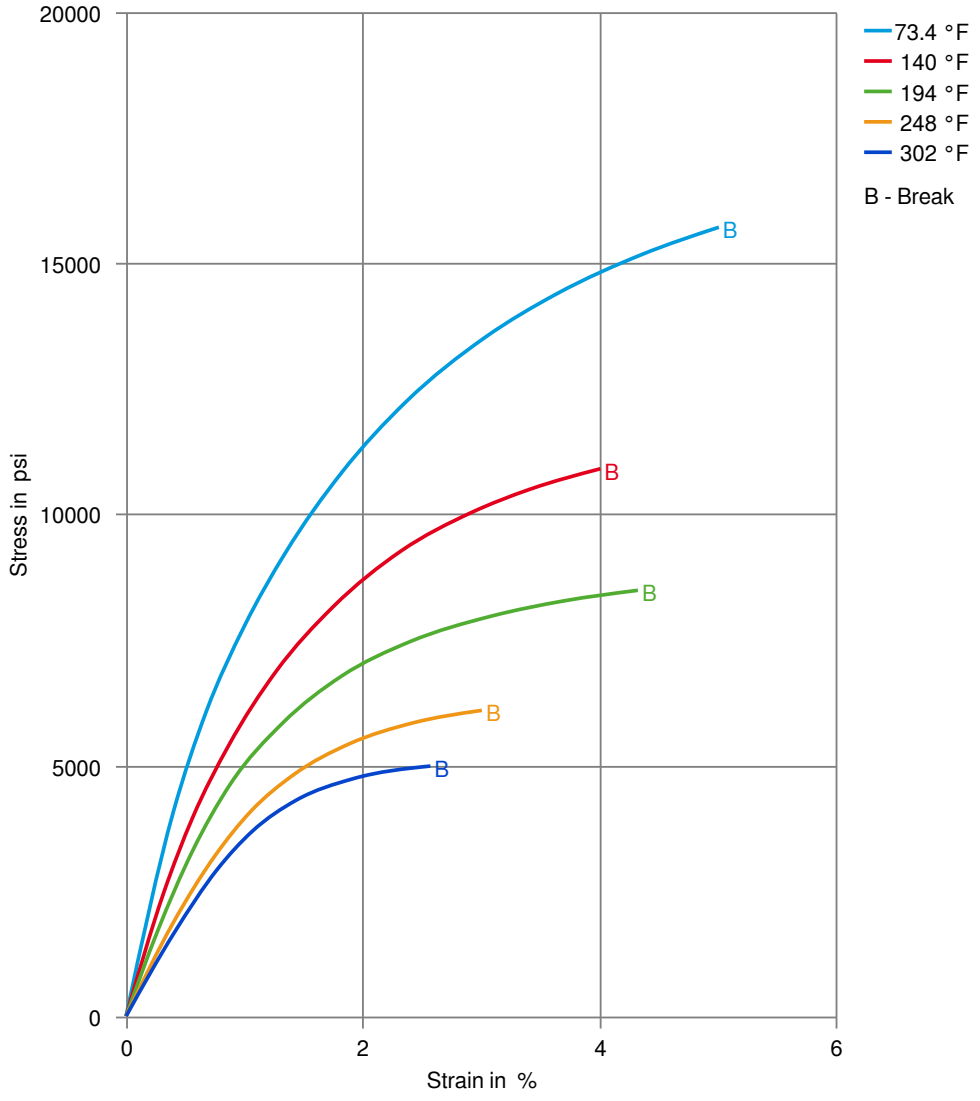
Pre-Drying

Please allow time for resin to reach drying temperature. Insure filter element is clean and there is sufficient air flow (>1 ft/sec. space velocity)
across surface of pellets. Extended drying at 300°F (150°C) up to 24 hours will not harm resin. Hopper dryers with dual desiccant cartridges
(one active while the other is regenerating) are highly recommended.

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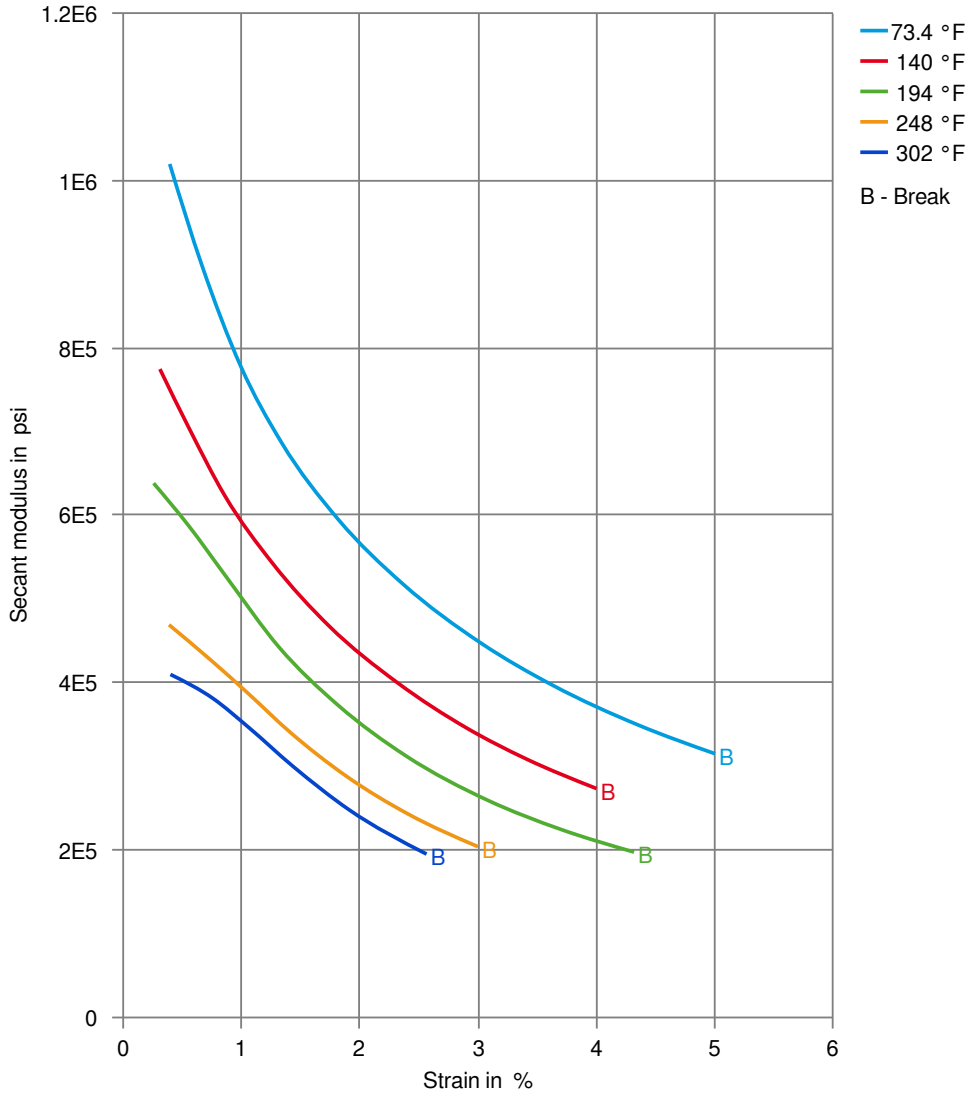
Stress-strain



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Secant modulus-strain



Revised: 2026-09-24 Source: Celanese Materials Database

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values. Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.
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