

## ZENITE® 7130 - LCP

### Description

30% glass reinforced, excellent toughness

Zenite® 7130 is a 30% glass fiber reinforced liquid crystal polymer for injection molding. It has excellent impact resistance and excellent heat deflection temperature.

Physical properties	Value	Unit	Test Standard
Density	1620	kg/m <sup>3</sup>	ISO 1183
Molding shrinkage, parallel (flow)	0.01	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	0.6	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	17000	MPa	ISO 527-1, -2
Tensile stress at break, 5mm/min	150	MPa	ISO 527-1, -2
Tensile strain at break, 5mm/min	1.5	%	ISO 527-1, -2
Flexural modulus, 23°C	16500	MPa	ISO 178
Flexural strength, 23°C	210	MPa	ISO 178
Charpy impact strength, 23°C	30	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	22	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	20	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	20	kJ/m <sup>2</sup>	ISO 179/1eA
Izod impact notched, 23°C	18	kJ/m <sup>2</sup>	ISO 180/1A
Izod impact unnotched, 23°C	30	kJ/m <sup>2</sup>	ISO 180/1U

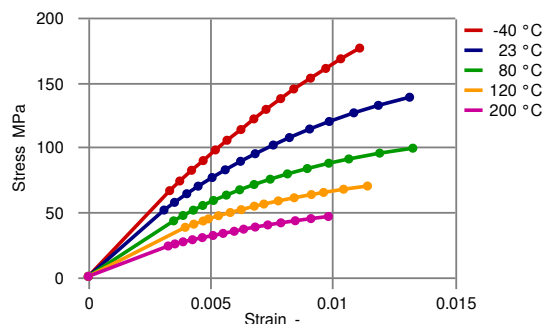
Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	352	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	120	°C	ISO 11357-1,-2,-3
DTUL at 1.8 MPa	310	°C	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	0.03	E-4/°C	ISO 11359-2
Coeff. of linear therm expansion, normal	0.62	E-4/°C	ISO 11359-2
Limiting oxygen index (LOI)	45	%	ISO 4589-1/-2
Flammability at thickness h	V-0	class	UL 94
thickness tested (h)	0.40	mm	UL 94
UL recognition (h)	UL	-	UL 94

Electrical properties	Value	Unit	Test Standard
Dielectric constant (Dk), 100Hz	4.1	-	IEC 60250
Dielectric constant (Dk), 1MHz	3.7	-	IEC 60250
Dissipation factor, 100Hz	140	E-4	IEC 60250
Dissipation factor, 1MHz	300	E-4	IEC 60250
Volume resistivity, 23°C	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity, 23°C	>1E15	Ohm	IEC 62631-3-2
Electric strength, 23°C (AC)	45	kV/mm	IEC 60243-1
Comparative tracking index	PLC 4	-	UL 746



## Diagrams

## True Stress-strain



## Typical injection moulding processing conditions

## Pre Drying

	Value	Unit
Necessary low maximum residual moisture content	0.01	%
Drying time	3	h
Drying temperature	≥150	°C

## Temperature

	Value	Unit
Hopper temperature	20 - 30	°C
Feeding zone temperature	40 - 60	°C
Zone1 temperature	355 - 365	°C
Zone2 temperature	360 - 370	°C
Zone3 temperature	360 - 370	°C
Zone4 temperature	360 - 370	°C
Nozzle temperature	360 - 370	°C
Melt temperature	360 - 370	°C
Mold temperature	80 - 120	°C

## Pressure

	Value	Unit
Injection pressure	500 - 1500	bar
Hold pressure	500 - 1500	bar
Back pressure max.	30	bar

## Other text information

## Injection molding

Melt Temperature Optimum = 365 °C  
Melt Temperature Range = 360-370 °C  
Mold Temperature Optimum = 80 °C  
Mold Temperature Range = 40-150 °C

## Injection Molding Preprocessing

Drying Temperature = 150 °C  
Drying Time, Dehumidified Dryer = 3h  
Processing Moisture Content = <0.01 %



---

## ZENITE® 7130 - LCP

---

### Characteristics

---

Special Characteristics	Flame retardant, High flow, Lead-free soldering
Product Categories	Glass reinforced
Processing	Injection molding

---

### General Disclaimer

---

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. 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. The products mentioned herein are not intended for use in medical or dental implants.

### Trademark

---

© 2022 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC. KEPITAL is a registered trademark of Korea Engineering Plastics Company, Ltd.

