

ZENITE® 5115L | LCP | Glass Reinforced

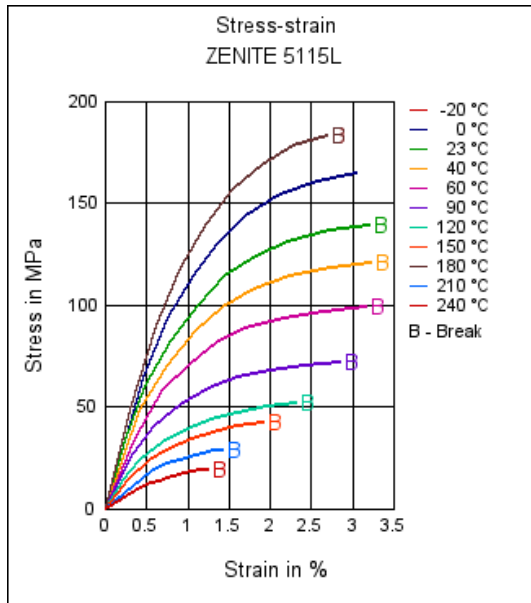
Description

Zenite® 5115L is a 15% glass fiber reinforced liquid crystal polymer for injection molding with improved toughness.

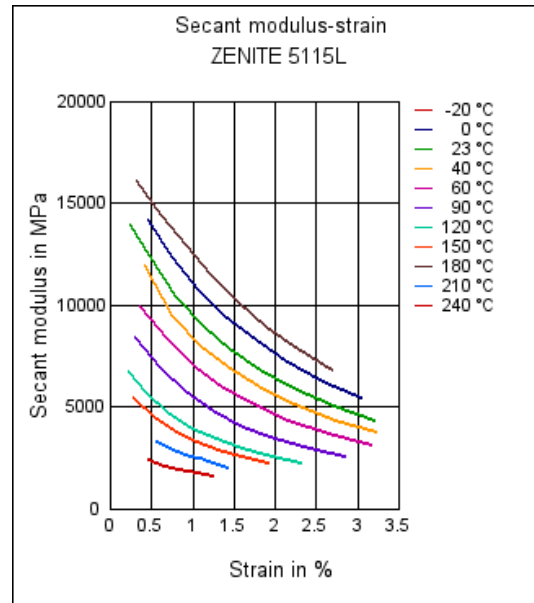
Physical properties	Value	Unit	Test Standard
Density	1500	kg/m ³	ISO 1183
Mold shrinkage - parallel	0.2	%	ISO 294-4
Mold shrinkage - normal	0.9	%	ISO 294-4
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	11500	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	175	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	3	%	ISO 527-2/1A
Flexural modulus (23°C)	10500	MPa	ISO 178
Flexural strength (23°C)	170	MPa	ISO 178
Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	319	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	275	°C	ISO 75-1/-2
Flammability at thickness h	V-0	class	UL94
thickness tested (h)	0.8	mm	UL94
UL recognition (h)	UL	-	UL94
Electrical properties	Value	Unit	Test Standard
Relative permittivity - 1 MHz	2.5	-	IEC 60250
Relative permittivity at 2.05 GHz	3.76	-	IPC TM-650 2.5.5.13
Dissipation factor - 1 MHz	159	E-4	IEC 60250
Dissipation factor at 2.05 GHz	30	E-4	IPC TM-650 2.5.5.13

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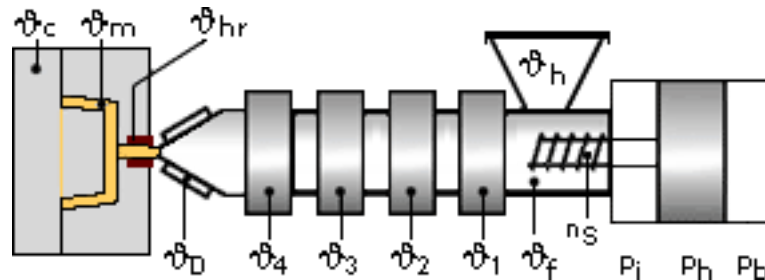
Stress-strain



Secant modulus-strain



Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.01%

Drying time: 3 h

Drying temperature: 150 - 150 °C

Temperature:

	θ _{Mold}	θ _{Melt}	θ _{Nozzle}	θ _{Zone4}	θ _{Zone3}	θ _{Zone2}	θ _{Zone1}	θ _{Feed}	θ _{Hopper}
min (°C)	80	325	335	335	335	335	320	40	20
max (°C)	120	345	345	345	345	345	330	60	30

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Pressure:

	Inj press	Hold press	Back pressure
min (bar)	500	500	0
max (bar)	1500	1500	30

Contact Information

Americas

8040 Dixie Highway, Florence, KY 41042 USA

Product Information Service

t: +1-800-833-4882 t: +1-859-372-3244

Customer Service

t: +1-800-526-4960 t: +1-859-372-3214

e: info-engineeredmaterials-am@celanese.com

Asia

4560 Jinke Road, Zhang Jiang Hi Tech Park

Shanghai 201203 PRC

Customer Service

t: +86 21 3861 9266 f: +86 21 3861 9599

e: info-engineeredmaterials-asia@celanese.com

Europa

Am Unisys-Park 1, 65843 Sulzbach, Germany

Product Information Service

t: +(00)-800-86427-531 t: +49-(0)-69-45009-1011

e: info-engineeredmaterials-eu@celanese.co

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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.

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