

ZENITE® 6140L | LCP | Glass Reinforced

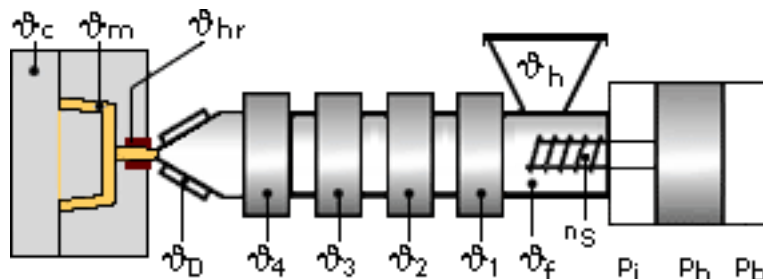
Description

Zenite® 6140L is a 40% glass fiber reinforced and lubricated liquid crystal polymer for injection molding. It has excellent impact resistance and excellent heat deflection temperature.

Physical properties	Value	Unit	Test Standard
Density	1710	kg/m ³	ISO 1183
Mold shrinkage - parallel	0.05	%	ISO 294-4
Mold shrinkage - normal	0.5	%	ISO 294-4
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	17000	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	130	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	1.1	%	ISO 527-2/1A
Flexural modulus (23°C)	16500	MPa	ISO 178
Flexural strength (23°C)	190	MPa	ISO 178
Charpy impact strength @ 23°C	23.0	kJ/m ²	ISO 179/1eU
Charpy impact strength @ -30°C	20.0	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	15.0	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	15.0	kJ/m ²	ISO 179/1eA
Notched impact strength (Izod) @ 23°C	12.0	kJ/m ²	ISO 180/1A
Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	335	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	280	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	0.04	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	0.64	E-4/°C	ISO 11359-2
Flammability @1.6mm nom. thickn.	V-0	class	UL94
thickness tested (1.6)	1.5	mm	UL94
UL recognition (1.6)	UL	-	UL94
Flammability at thickness h	V-0	class	UL94
thickness tested (h)	0.4	mm	UL94
UL recognition (h)	UL	-	UL94
Electrical properties	Value	Unit	Test Standard
Volume resistivity	>1E13	Ohm*m	IEC 60093
Surface resistivity	>1E15	Ohm	IEC 60093
Electric strength	45	kV/mm	IEC 60243-1
Comparative tracking index CTI	175	-	IEC 60112

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Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.01%

Drying time: 3 h

Drying temperature: 150 - - °C

Temperature:

	Mold	Melt
min (°C)	40	350
max (°C)	150	360

Injection Molding

Melt Temperature Optimum = 355°C
Melt Temperature Range = 350-360°C
Mold Temperature Optimum = 90°C
Mold Temperature Range = 30-160°C

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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