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/m³	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/m²	ISO 179/1eU
Charpy impact strength @ -30°C	**20.0**	kJ/m²	ISO 179/1eU
Charpy notched impact strength @ 23°C	**15.0**	kJ/m²	ISO 179/1eA
Charpy notched impact strength @ -30°C	**15.0**	kJ/m²	ISO 179/1eA
Notched impact strength (Izod) @ 23°C	**12.0**	kJ/m²	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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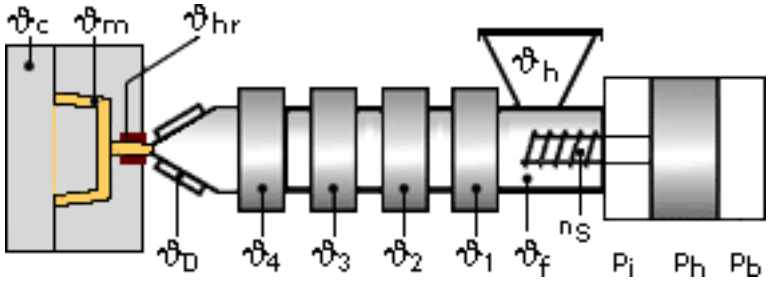
Typical injection moulding processing conditions



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

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

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