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**ZENITE® ZE88410NXL - LCP**


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**Description**


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40% glass reinforced, high weld-line strength, low warpage and with added lubricity. Chemical abbreviation according to ISO 1043-1 : LCP

<b>Physical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Density	<b>104</b>	lb/ft <sup>3</sup>	ISO 1183
Molding shrinkage, parallel	<b>0.3</b>	%	ISO 294-4, 2577
Molding shrinkage, normal	<b>0.6</b>	%	ISO 294-4, 2577

<b>Mechanical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Tensile modulus	<b>2.31E6</b>	psi	ISO 527-2/1A
Tensile stress at break, 5mm/min	<b>18900</b>	psi	ISO 527-2/1A
Tensile strain at break, 5mm/min	<b>1</b>	%	ISO 527-2/1A
Flexural modulus, 23°C	<b>2.29E6</b>	psi	ISO 178
Flexural strength, 23°C	<b>29000</b>	psi	ISO 178
Izod impact notched, 23°C	<b>3.81</b>	ft-lb/in <sup>2</sup>	ISO 180/1A

<b>Thermal properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Melting temperature, 10°C/min	<b>622</b>	°F	ISO 11357-1/-3
DTUL at 1.8 MPa	<b>505</b>	°F	ISO 75-1, -2
Vicat softening temperature, 50°C/h 50N	<b>462</b>	°F	ISO 306
Coeff. of linear therm expansion, parallel	<b>0.0667</b>	E-4/°F	ISO 11359-2
Coeff. of linear therm expansion, normal	<b>0.456</b>	E-4/°F	ISO 11359-2
Flammability at thickness h	<b>V-0</b>	class	UL 94
thickness tested (h)	<b>0.0098</b>	in	UL 94

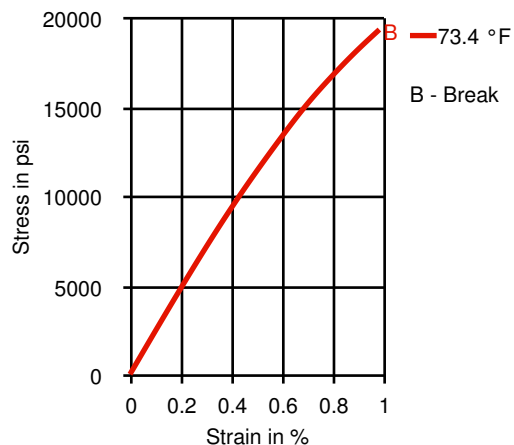
<b>Electrical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Surface resistivity	<b>1E17</b>	Ohm	IEC 60093
Electric strength	<b>838</b>	kV/in	IEC 60243-1

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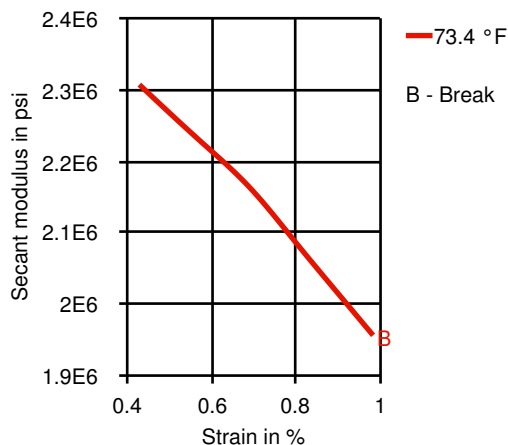
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**Diagrams**

**Stress-strain**



**Secant modulus-strain**



**Typical injection moulding processing conditions**

	Value	Unit	Test Standard
<b>Pre Drying</b>			
Necessary low maximum residual moisture content	0.01	%	-
Drying time	4 - 24	h	-
Drying temperature	302	°F	-
<b>Temperature</b>			
Hopper temperature	68 - 86	°F	-
Feeding zone temperature	140 - 176	°F	-
Zone1 temperature	599 - 617	°F	-
Zone2 temperature	617 - 635	°F	-
Zone3 temperature	626 - 644	°F	-
Zone4 temperature	635 - 653	°F	-
Nozzle temperature	635 - 653	°F	-
Melt temperature	635 - 653	°F	-
Mold temperature	212 - 266	°F	-
Hot runner temperature	635 - 653	°F	-
<b>Pressure</b>			
Injection pressure	500 - 1500	bar	-
Hold pressure	500 - 1500	bar	-
Back pressure max.	30	bar	-
<b>Speed</b>			
Injection speed	very fast	-	-
<b>Screw Speed</b>			
Screw speed diameter, 16mm	200	RPM	-
Screw speed diameter, 25mm	140	RPM	-
Screw speed diameter, 40mm	80	RPM	-

**Other text information**

**Pre-drying**

LCP should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be =< - 40° C. The time between drying and processing should be as short as possible.

**Longer pre-drying times/storage**

For subsequent storage of the material in the dryer until processed the temperature does not need to be lowered for grades A, B, C, D and V (<= 24 h).