ZENITE® ZE88410NXL | LCP | Glass Reinforced

Description

40% glass reinforced, high weld-line strength, low warpage and with added lubricity.

Chemical abbreviation according to ISO 1043-1 : LCP

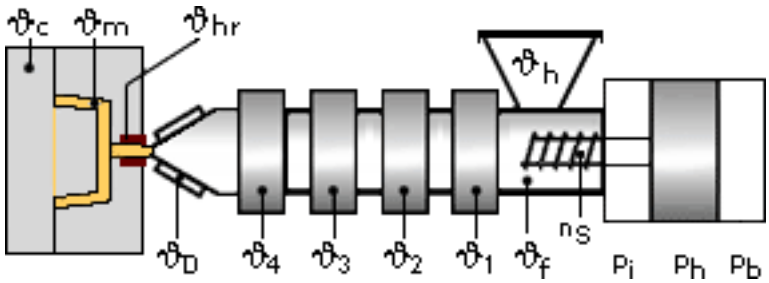
Physical properties	Value	Unit	Test Standard
Density	**1670**	kg/m³	ISO 1183
Mold shrinkage - parallel	**0.3**	%	ISO 294-4
Mold shrinkage - normal	**0.6**	%	ISO 294-4

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	**15900**	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	**130**	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	**1**	%	ISO 527-2/1A
Flexural modulus (23°C)	**15800**	MPa	ISO 178
Flexural strength (23°C)	**200**	MPa	ISO 178
Notched impact strength (Izod) @ 23°C	**8.0**	kJ/m²	ISO 180/1A

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	**328**	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	**263**	°C	ISO 75-1/-2
Vicat softening temperature B50 (50°C/h 50N)	**239**	°C	ISO 306
Coeff.of linear therm. expansion (parallel)	**0.12**	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	**0.82**	E-4/°C	ISO 11359-2
Flammability at thickness h	**V-0**	class	UL94
thickness tested (h)	**0.25**	mm	UL94

Electrical properties	Value	Unit	Test Standard
Surface resistivity	**1E17**	Ohm	IEC 60093
Electric strength	**33**	kV/mm	IEC 60243-1

Typical injection moulding processing conditions



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Pre Drying:

Necessary low maximum residual moisture content: 0.01%

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.

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).

Drying time: 4 - 24 h

Drying temperature: 150 - 150 °C

Temperature:

	Manifold	Mold	Melt	Nozzle	Zone4	Zone3	Zone2	Zone1	Feed	Hopper
min (°C)	335	100	335	335	335	330	325	315	60	20
max (°C)	345	130	345	345	345	340	335	325	80	30

Pressure:

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

Speed:

Injection speed: very fast

Screw speed

Screw diameter (mm)	16	25	40	55	75
Screw speed (RPM)	200	140	80	-	-

Special Info:

When using short metering strokes an accumulator is recommended to get short injection times

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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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