

ZENITE® 5244L | LCP | Mineral / Glass Reinforced

Description

Zenite 5244L is a 40% glass/mineral reinforced LCP resin with improved toughness.

Physical properties	Value	Unit	Test Standard
Density	1710	kg/m ³	ISO 1183
Mold shrinkage - parallel	0.1	%	ISO 294-4
Mold shrinkage - normal	0.4	%	ISO 294-4

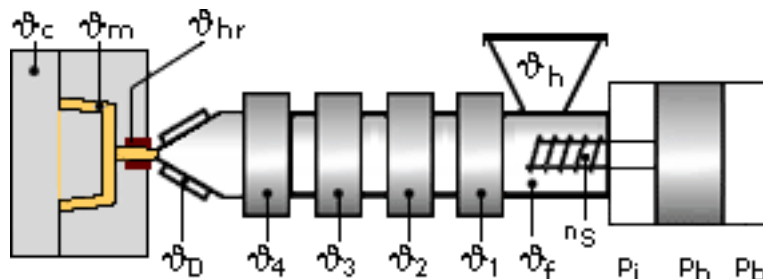
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	14000	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	131	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	1.66	%	ISO 527-2/1A
Flexural modulus (23°C)	13100	MPa	ISO 178
Flexural strength (23°C)	198	MPa	ISO 178
Charpy impact strength @ 23°C	27.0	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	16.6	kJ/m ²	ISO 179/1eA
Unnotched impact str (Izod) @ 23°C	28	kJ/m ²	ISO 180/1U

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	318	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	285	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	0.06	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	0.48	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)	0.8	mm	UL94
UL recognition (h)	UL	-	UL94

Electrical properties	Value	Unit	Test Standard
Relative permittivity at 2.05 GHz	4.18	-	IPC TM-650 2.5.5.13
Dissipation factor at 2.05 GHz	40	E-4	IPC TM-650 2.5.5.13

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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 - 150 °C

Temperature:

	ϑMold	ϑMelt	ϑNozzle	ϑZone4	ϑZone3	ϑZone2	ϑZone1	ϑFeed	ϑHopper
min (°C)	80	325	335	335	335	335	320	40	20
max (°C)	120	345	345	345	345	345	330	60	30

Pressure:

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

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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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