

VECTRA® E130G | LCP | Glass Reinforced

Description

30% glass fiber filled / low injection pressure

Chemical abbreviation according to ISO 1043-1 : LCP

Inherently flame retardant

UL-Listing V-0 in natural and black at 0.75mm thickness per UL 94 flame testing.

Relative-Temperature-Index (RTI) according to UL 746B: electricals 130°C, mechanicals 130°C.

UL = Underwriters Laboratories (USA)

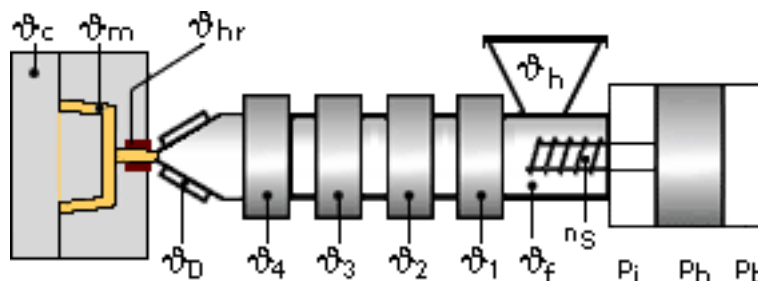
Physical properties	Value	Unit	Test Standard
Density	1610	kg/m ³	ISO 1183

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	12000	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	140	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	3	%	ISO 527-2/1A
Flexural modulus (23°C)	12000	MPa	ISO 178
Flexural strength (23°C)	170	MPa	ISO 178
Notched impact strength (Izod) @ 23°C	25.0	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	245	°C	ISO 75-1/-2
DTUL @ 0.45 MPa	273	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	0.05	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	0.67	E-4/°C	ISO 11359-2
Flammability at thickness h	V-0	class	UL94
thickness tested (h)	0.75	mm	UL94

Electrical properties	Value	Unit	Test Standard
Volume resistivity	>1E13	Ohm*m	IEC 60093
Surface resistivity	>1E14	Ohm	IEC 60093

Typical injection moulding processing conditions



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Pre Drying:

Necessary low maximum residual moisture content: 0.01%

VECTRA 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 $\leq -40^{\circ}\text{C}$. The time between drying and processing should be as short as possible.

Drying time: 4 h

Drying temperature: 150 - 170 °C

Temperature:

	ϑ _{Mold}	ϑ _{Melt}	ϑ _{Nozzle}	ϑ _{Zone4}	ϑ _{Zone3}	ϑ _{Zone2}	ϑ _{Zone1}
min (°C)	80	335	335	330	325	320	315
max (°C)	120	355	350	360	355	345	335

Pressure:

	Inj press	Hold press
min (bar)	500	500
max (bar)	1500	1500

Speed:

Injection speed: very fast

Screw speed

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

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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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