

VECTRA® E130G | LCP | Glass Reinforced

Description

30% glass fiber filled / low injection pressure

Chemical abbreviation according to ISO 1043-1 : LCP

Inherently flame retardant

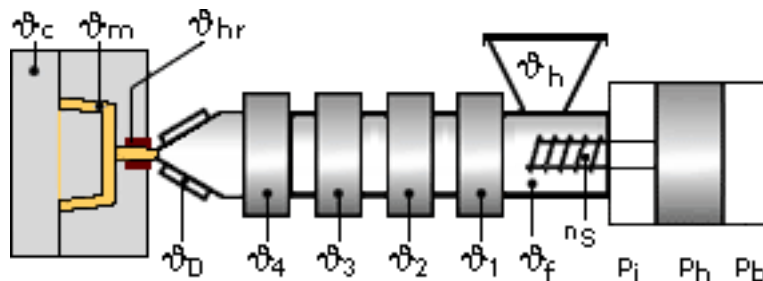
UL-Listing V-0 in natural and black at 0.75mm thickness per UL 94 flame testing.

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}	$\vartheta_{\text{Nozzle}}$	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

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

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