VECTRA® E845i LDS | LCP | Mineral / Glass Reinforced

Description

LDS capable LCP with higher DTUL and impact

Chemical abbreviation according to ISO 1043-1 : LCP
Inherently flame retardant

UL-Listing V-0 in black a 0.25mm thickness per UL 94 flame testing.

UL = Underwriters Laboratories (USA)

Physical properties	Value	Unit	Test Standard
Density	**1770**	kg/m³	ISO 1183
Mold shrinkage - parallel	**0.0**	%	ISO 294-4
Mold shrinkage - normal	**0.23**	%	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)	**130**	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	**1.7**	%	ISO 527-2/1A
Flexural modulus (23°C)	**14000**	MPa	ISO 178
Flexural strength (23°C)	**180**	MPa	ISO 178
Charpy notched impact strength @ 23°C	**20.0**	kJ/m²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	**335**	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	**255**	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	**0.08**	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	**0.58**	E-4/°C	ISO 11359-2

Electrical properties	Value	Unit	Test Standard
Relative permittivity - 1 MHz	**3.87**	-	IEC 60250
Relative permittivity at 2.05 GHz	**4.35**	-	IPC TM-650 2.5.5.13
Dissipation factor - 1 MHz	**370**	E-4	IEC 60250
Dissipation factor at 2.05 GHz	**50**	E-4	IPC TM-650 2.5.5.13

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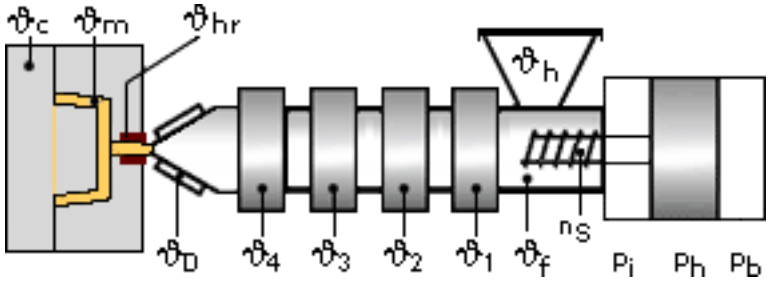
Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.01%

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 =< - 40° C. The time between drying and processing should be as short as possible.

Drying time: 6 h

Drying temperature: 150 - 150 °C

Temperature:

	ϑManifold	ϑMold	ϑMelt	ϑNozzle	ϑZone4	ϑZone3	ϑZone2	ϑZone1	ϑFeed	ϑHopper
min (°C)	340	80	340	340	335	325	320	315	60	20
max (°C)	350	120	350	350	345	335	330	325	80	30

Pressure:

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

Speed:

Injection speed: medium

Screw speed

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

Special Info:

For MID applications mold temperature between 120 - 140°C are recommended. For applications with extremely thin wall applications pre-humidity of max. 0,01% is recommended. When using short metering strokes an accumulator is recommended to get short injec

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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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