VECTRA® E840i LDS | LCP | Mineral Reinforced

Description

40% Mineral filled Laser Direct Structuring grade.

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

UL-Listing V-0 in black at 1.5mm thickness per UL 94 flame testing.

UL = Underwriters Laboratories (USA)

Physical properties	Value	Unit	Test Standard
Density	**1810**	kg/m³	ISO 1183
Mold shrinkage - parallel	**0.1**	%	ISO 294-4
Mold shrinkage - normal	**0.5**	%	ISO 294-4
Water absorption (23°C-sat)	**0.011**	%	ISO 62
Humidity absorption (23°C/50%RH)	**0.004**	%	ISO 62

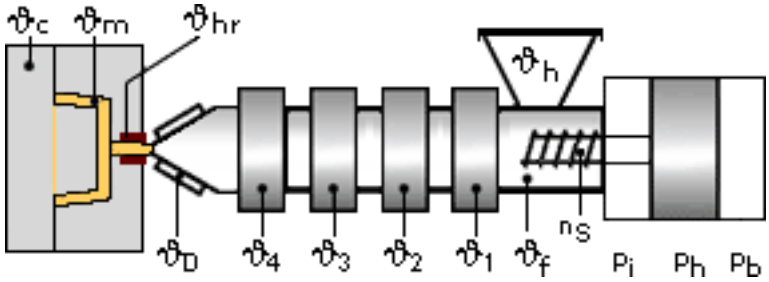
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	**9300**	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	**102**	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	**3.4**	%	ISO 527-2/1A
Flexural modulus (23°C)	**10500**	MPa	ISO 178
Flexural strength (23°C)	**109**	MPa	ISO 178
Charpy notched impact strength @ 23°C	**5.0**	kJ/m²	ISO 179/1eA
Unnotched impact str (Izod) @ 23°C	**33**	kJ/m²	ISO 180/1U
Notched impact strength (Izod) @ 23°C	**6.0**	kJ/m²	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	**227**	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	**0.12**	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	**0.27**	E-4/°C	ISO 11359-2

Electrical properties	Value	Unit	Test Standard
Relative permittivity - 100 Hz	**4.97**	-	IEC 60250
Dissipation factor - 100 Hz	**289**	E-4	IEC 60250
Volume resistivity	**2E14**	Ohm*m	IEC 60093
Surface resistivity	**2E16**	Ohm	IEC 60093
Electric strength	**28**	kV/mm	IEC 60243-1

VECTRA® E840i LDS | LCP | Mineral Reinforced

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

VECTRA® E840i LDS | LCP | Mineral Reinforced

Contact Information

Americas
8040 Dixie Highway, Florence, KY 41042 USA
Product Information Service
t: +1-800-833-4882 t: +1-859-372-3244
Customer Service
t: +1-800-526-4960 t: +1-859-372-3214
e: info-engineeredmaterials-am@celanese.com
Asia
4560 Jinke Road, Zhang Jiang Hi Tech Park
Shanghai 201203 PRC
Customer Service
t: +86 21 3861 9266 f: +86 21 3861 9599
e: info-engineeredmaterials-asia@celanese.com
Europa
Am Unisys-Park 1, 65843 Sulzbach, Germany
Product Information Service
t: +(00)-800-86427-531 t: +49-(0)-69-45009-1011
e: info-engineeredmaterials-eu@celanese.co

General Disclaimer