

VECTRA® E488i | LCP | Specialty

Description

Ultra low warp

Physical properties	Value	Unit	Test Standard
Density	1770	kg/m ³	ISO 1183
Mold shrinkage - parallel	0.14	%	ISO 294-4
Mold shrinkage - normal	0.43	%	ISO 294-4
Water absorption (23°C-sat)	0.005	%	ISO 62

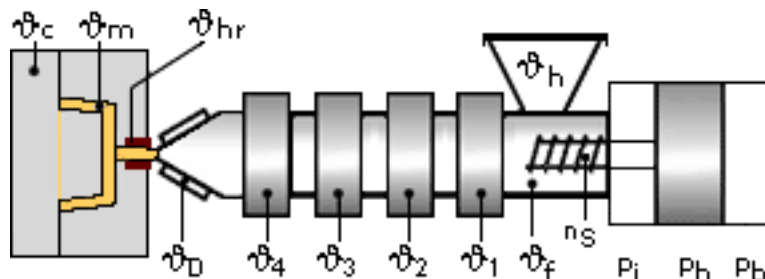
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	13000	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	110	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	1.5	%	ISO 527-2/1A
Flexural modulus (23°C)	13000	MPa	ISO 178
Flexural strength (23°C)	160	MPa	ISO 178
Flexural strain @ break	1.8	%	ISO 178
Charpy impact strength @ 23°C	29.0	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	18.0	kJ/m ²	ISO 179/1eA
Unnotched impact str (Izod) @ 23°C	28	kJ/m ²	ISO 180/1U
Notched impact strength (Izod) @ 23°C	9.0	kJ/m ²	ISO 180/1A
Compressive modulus	11000	MPa	ISO 604
Rockwell hardness	54	M-Scale	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	335	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	260	°C	ISO 75-1/-2
Vicat softening temperature B50 (50°C/h 50N)	200	°C	ISO 306
Coeff.of linear therm. expansion (parallel)	0.08	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	0.42	E-4/°C	ISO 11359-2
Flammability at thickness h	V-0	class	UL94
thickness tested (h)	0.15	mm	UL94

Electrical properties	Value	Unit	Test Standard
Relative permittivity - 1 MHz	4.24	-	IEC 60250
Dissipation factor - 1 MHz	450	E-4	IEC 60250
Volume resistivity	1E14	Ohm*m	IEC 60093
Surface resistivity	1E17	Ohm	IEC 60093
Electric strength	55	kV/mm	IEC 60243-1
Comparative tracking index CTI	175	-	IEC 60112

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Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: **0.01%**

Drying time: **6 h**

Drying temperature: **150 - - °C**

Temperature:

	$\varnothing_{\text{Mold}}$	$\varnothing_{\text{Melt}}$	$\varnothing_{\text{Nozzle}}$	$\varnothing_{\text{Zone4}}$	$\varnothing_{\text{Zone3}}$	$\varnothing_{\text{Zone2}}$	$\varnothing_{\text{Zone1}}$
min (°C)	80	340	335	340	335	325	315
max (°C)	120	355	345	360	345	335	325

Pressure:

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

Speed:

Injection speed: **very fast**

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General Disclaimer

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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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