

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

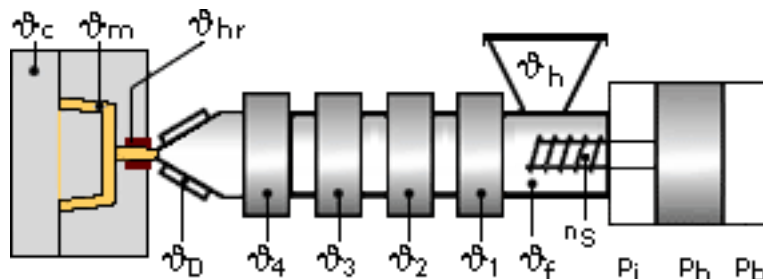
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	13000	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	110	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	1.5	%	ISO 527-2/1A
Flexural modulus (23°C)	13000	MPa	ISO 178
Flexural strength (23°C)	160	MPa	ISO 178
Flexural strain @ 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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