

## VECTRA® E473i | LCP | Mineral / Glass Reinforced

### Description

Vectra E473i is a low warp LCP with easy flow and high temperature capability.

Chemical abbreviation according to ISO 1043-1 : LCP

Inherently flame retardant

FDA compliant

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	<b>1630</b>	kg/m <sup>3</sup>	ISO 1183

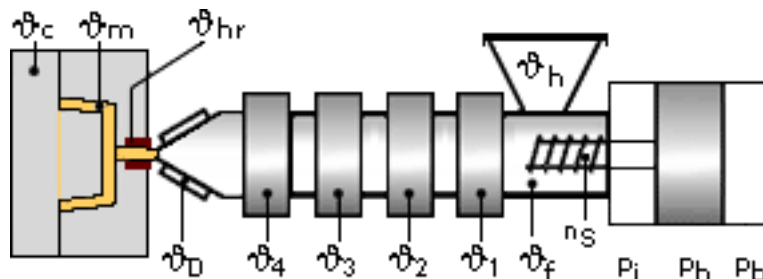
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	<b>10900</b>	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	<b>115</b>	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	<b>2.2</b>	%	ISO 527-2/1A
Flexural modulus (23°C)	<b>10900</b>	MPa	ISO 178
Flexural strength (23°C)	<b>150</b>	MPa	ISO 178
Compressive stress @ 1% strain	<b>59</b>	MPa	ISO 604
Charpy impact strength @ 23°C	<b>33.0</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength @ 23°C	<b>20.0</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Unnotched impact str (Izod) @ 23°C	<b>30</b>	kJ/m <sup>2</sup>	ISO 180/1U
Notched impact strength (Izod) @ 23°C	<b>10.0</b>	kJ/m <sup>2</sup>	ISO 180/1A
Rockwell hardness	<b>40</b>	M-Scale	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	<b>335</b>	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	<b>250</b>	°C	ISO 75-1/-2
DTUL @ 8.0 MPa	<b>159</b>	°C	ISO 75-1/-2
Vicat softening temperature B50 (50°C/h 50N)	<b>190</b>	°C	ISO 306
Coeff.of linear therm. expansion (parallel)	<b>0.06</b>	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	<b>0.11</b>	E-4/°C	ISO 11359-2
Flammability @1.6mm nom. thickn.	<b>V-0</b>	class	UL94

Electrical properties	Value	Unit	Test Standard
Relative permittivity - 1 MHz	<b>3.9</b>	-	IEC 60250
Dissipation factor - 1 MHz	<b>3400</b>	E-4	IEC 60250
Volume resistivity	<b>1E14</b>	Ohm*m	IEC 60093
Surface resistivity	<b>&gt;1E15</b>	Ohm	IEC 60093
Electric strength	<b>49</b>	kV/mm	IEC 60243-1
Comparative tracking index CTI	<b>175</b>	-	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 - 150 °C**

**Temperature:**

	ϕMold	ϕMelt	ϕNozzle	ϕZone4	ϕZone3	ϕZone2	ϕZone1	ϕFeed	ϕHopper
min (°C)	80	335	335	330	325	320	315	60	60
max (°C)	120	345	345	340	335	330	325	80	80

**Pressure:**

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

**Speed:**

**Injection speed: high**

**Screw speed**

Screw diameter (mm)	16	25	40	55	75
Screw speed (RPM)	-	100	120	150	200

**Contact Information**

**Americas**

Ticona North American Headquarters  
Product Information Service  
8040 Dixie Highway  
Florence, KY 41042  
USA  
Tel.: +1-800-833-4882  
Tel.: +1-859-372-3244  
email: [prodinfo@ticona.com](mailto:prodinfo@ticona.com)  
Ticona on the web: [www.ticona.com](http://www.ticona.com)

**Europe**

Ticona GmbH  
Information Service  
Tel.: +49 (0) 180-5842662 (Germany)  
+49 (0) 69-30516299 (Europe)  
Fax: +49 (0) 180-2021202 (Germany & Europe)  
email: [infoservice@ticona.de](mailto:infoservice@ticona.de)  
Internet: [www.ticona.com](http://www.ticona.com)

## VECTRA® E473i | LCP | Mineral / Glass Reinforced

### Customer Service

Tel.: +1-800-526-4960

Tel.: +1-859-372-3214

Fax: +1-859-372-3125

## General Disclaimer

**NOTICE TO USERS:** Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

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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We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed (+49 (0) 69 30516299 for Europe and +1 859-372-3244 for the Americas) for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.

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