

VECTRA® V400P | LCP | Specialty

Description

Co-extrudable LCP for Barrier Applications. Vectra V400P Liquid Crystal Polymer is characterized by its excellent barrier properties independent of relative humidity, chemical resistance and contact clarity in thin film applications. This material is not suitable for medical or dental implants.

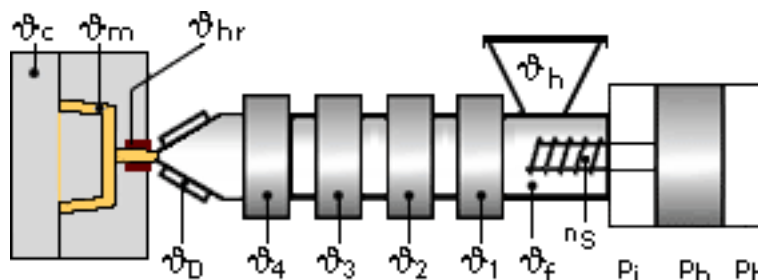
Chemical abbreviation according to ISO 1043-1 : LCP
Inherently flame retardant

Physical properties	Value	Unit	Test Standard
Density	1400	kg/m ³	ISO 1183
Humidity absorption (23°C/50%RH)	0.04	%	ISO 62
Melt index (I2 @ 230°C, nominal)	14	dg/min	Internal

Thermal properties	Value	Unit	Test Standard
Glass transition (onset)	110	°C	ISO 3146

Barrier Prop (Film) properties	Value	Unit	Test Standard
Water vapor permeability @38°C	0.4	g-25µm/(m ² day-atm)	DIN 53122
Oxygen permeability @ 23°C, 0% RH	1.35	cc-25µm/m ² -day-atm	DIN 53380 part 3
Oxygen permeability @23°C, 100% RH	1.27	cc-25µm/m ² -day-atm	DIN 53380 part 3

Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.01%

Drying time: 8 - 24 h

Drying temperature: 90 - 90 °C

Temperature:

	ϕ Melt	ϕ Nozzle	ϕ Zone4	ϕ Zone3	ϕ Zone2	ϕ Zone1
min (°C)	225	200	205	205	205	185
max (°C)	235	210	215	215	215	195

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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.

The products mentioned herein are not intended for use in medical or dental implants.

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