

VECTRA® E820iPd | LCP | Specialty

Description

Catalytically modified E820i

Chemical abbreviation according to ISO 1043-1 : LCP

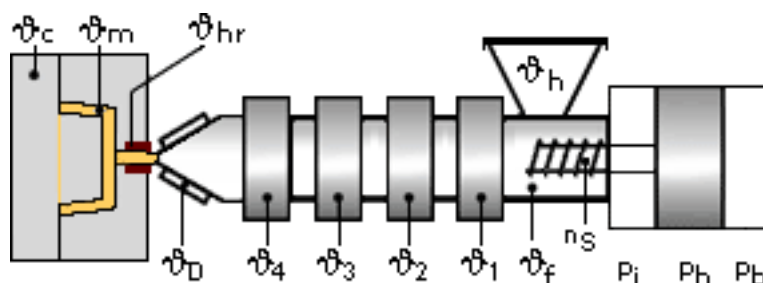
Inherently flame retardant

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

Relative-Temperature-Index (RTI) according to UL 746B: electrical 130°C, mechanical 130°C at 1.5mm.

UL = Underwriters Laboratories (USA)

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 $\leq -40^{\circ}\text{C}$. The time between drying and processing should be as short as possible.

For subsequent storage of the material in the dryer until processed the temperature does not need to be lowered for grades A, B, C, D and V ($\leq 24\text{ h}$).

Drying time: 4 - 6 h

Drying temperature: 338 - 338 °F

Temperature:

	θ _{Manifold}	θ _{Mold}	θ _{Melt}	θ _{Nozzle}	θ _{Zone4}	θ _{Zone3}	θ _{Zone2}	θ _{Zone1}	θ _{Feed}	θ _{Hopper}
min (°F)	635	176	635	635	626	617	608	599	140	68
max (°F)	653	248	653	653	644	635	626	617	176	86

Pressure:

	Inj press	Hold press	Back pressure
min (psi)	7250	7250	0
max (psi)	21800	21800	435

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Speed:**Injection speed: very fast****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

Injection Molding

A three-zone screw evenly divided into feed, compression, and metering zones is preferred. A higher percentage of feed flights may be needed for smaller machines: 1/2 feed, 1/4 compression, 1/4 metering.

Vectra LCPs are shear thinning, their melt viscosity decreases quickly as shear rate increases. For parts that are difficult to fill, the molder can increase the injection velocity to improve melt flow.

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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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