

VECTRA® E150i | LCP | Glass Reinforced

Description

Easy flowing grade with very good heat resistance, and mechanical properties. May reduce warpage in some parts compared to E130i. 50% glass reinforced.

Chemical abbreviation according to ISO 1043-1 : LCP

Inherently flame retardant

FDA compliant

UL-Listing V-0 in natural and black at 0.43mm thickness per UL 94 flame testing.

Relative-Temperature-Index (RTI) according to UL 746B: electricals 240°C, mechanicals 240°C at 0.75mm.

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: 6 h

Drying temperature: 302 - 302 °F

Temperature:

	ϕManifold	ϕMold	ϕMelt	ϕNozzle	ϕZone4	ϕZone3	ϕZone2	ϕZone1	ϕFeed	ϕHopper
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:

When using short metering strokes an accumulator is recommended to get short injection times

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 mold can increase the injection velocity to improve melt flow.

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