

VECTRA® A115 | LCP | Glass Reinforced

Description

Provides easier flow than A130. Slightly tougher, but may warp slightly more than A130 in some parts. 15% glass reinforced.

Chemical abbreviation according to ISO 1043-1 : LCP

Inherently flame retardant

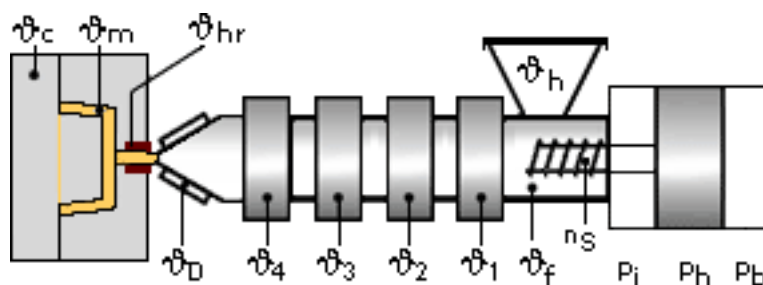
FDA compliant

UL-Listing V-0 in natural and black at 0.44mm thickness per UL 94 flame testing.

Relative-Temperature-Index (RTI) according to UL 746B: electricals 240°C, mechanicals 220°C at 0.85mm.

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: 302 - 302 °F

Temperature:

	θ_{Manifold}	θ_{Mold}	θ_{Melt}	θ_{Nozzle}	θ_{Zone4}	θ_{Zone3}	θ_{Zone2}	θ_{Zone1}	θ_{Feed}	θ_{Hopper}
min (°F)	545	176	545	554	545	536	527	518	140	68
max (°F)	563	248	563	572	563	554	545	536	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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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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