

## VECTRA® A530 | LCP | Mineral Reinforced

### Description

Best overall surface appearance with properties similar to A130. Less abrasive than glass fiber reinforced grades. Improved toughness over A130. Outstanding hydrolytic stability. Recommended where aesthetics are key. 30% mineral filled.

Chemical abbreviation according to ISO 1043-1 : LCP

Inherently flame retardant

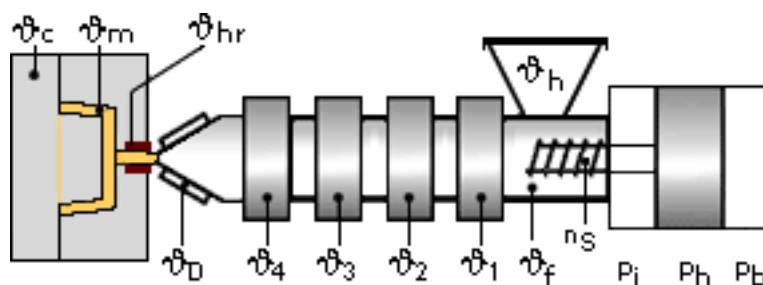
FDA compliant

UL-Listing V-0 in natural and black at 0.38mm thickness per UL 94 flame testing, and UL-5VA in natural at 3.0mm.

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

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

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**Injection Molding**

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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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**Contact Information**

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**Americas**

8040 Dixie Highway, Florence, KY 41042 USA

Product Information Service

t: +1-800-833-4882 t: +1-859-372-3244

Customer Service

t: +1-800-526-4960 t: +1-859-372-3214

e: [info-engineeredmaterials-am@celanese.com](mailto:info-engineeredmaterials-am@celanese.com)

**Asia**

4560 Jinke Road, Zhang Jiang Hi Tech Park

Shanghai 201203 PRC

Customer Service

t: +86 21 3861 9266 f: +86 21 3861 9599

e: [info-engineeredmaterials-asia@celanese.com](mailto:info-engineeredmaterials-asia@celanese.com)

**Europa**

Am Unisys-Park 1, 65843 Sulzbach, Germany

Product Information Service

t: +(00)-800-86427-531 t: +49-(0)-69-45009-1011

e: [info-engineeredmaterials-eu@celanese.com](mailto:info-engineeredmaterials-eu@celanese.com)

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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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