

## VECTRA® S540 | LCP | Mineral Reinforced

### Description

40% mineral filled grade, low warpage high flow.

Chemical abbreviation according to ISO 1043-1 : LCP

Inherently flame retardant

FDA compliant

UL-Listing V-0 in natural and black at .4mm thickness per UL 94 flame testing.

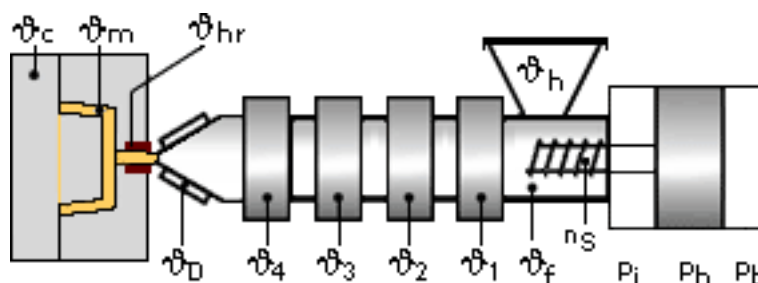
UL = Underwriters Laboratories (USA)

| Physical properties | Value | Unit              | Test Standard |
|---------------------|-------|-------------------|---------------|
| Density             | 1740  | kg/m <sup>3</sup> | ISO 1183      |

| Mechanical properties                 | Value | Unit              | Test Standard |
|---------------------------------------|-------|-------------------|---------------|
| Tensile modulus (1mm/min)             | 7500  | MPa               | ISO 527-2/1A  |
| Tensile stress at break (50mm/min)    | 100   | MPa               | ISO 527-2/1A  |
| Tensile strain at break (50mm/min)    | 3     | %                 | ISO 527-2/1A  |
| Flexural modulus (23°C)               | 9200  | MPa               | ISO 178       |
| Flexural strength (23°C)              | 130   | MPa               | ISO 178       |
| Notched impact strength (Izod) @ 23°C | 3.5   | kJ/m <sup>2</sup> | ISO 180/1A    |

| Thermal properties             | Value | Unit | Test Standard     |
|--------------------------------|-------|------|-------------------|
| Melting temperature (10°C/min) | 350   | °C   | ISO 11357-1,-2,-3 |
| DTUL @ 1.8 MPa                 | 275   | °C   | ISO 75-1/-2       |

### 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.

**Drying time: 6 h**

**Drying temperature: 150 - 150 °C**

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### Temperature:

|          | °Manifold | °Mold | °Melt | °Nozzle | °Zone4 | °Zone3 | °Zone2 | °Zone1 | °Feed | °Hopper |
|----------|-----------|-------|-------|---------|--------|--------|--------|--------|-------|---------|
| min (°C) | 365       | 80    | 365   | 365     | 365    | 365    | 355    | 345    | 60    | 20      |
| max (°C) | 375       | 140   | 375   | 375     | 375    | 375    | 365    | 355    | 80    | 40      |

### Pressure:

|           | Inj press | Hold press | Back pressure |
|-----------|-----------|------------|---------------|
| min (bar) | 500       | 500        | 0             |
| max (bar) | 1500      | 1500       | 30            |

### Speed:

**Injection speed: very fast**

## Contact Information

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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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