

Technical data

KEBAFLOW LCP MM140 (FE 180404*)

KEBAFLOW LCP MM140 (FE 180404*) is a 40% mineral reinforced LCP with very high heat resistance. The material is characterized by the following properties: Good flowability at thin wall thicknesses, very good toughness and strength, inherent flame retardancy, high heat deflection temperature (HDT ~270°C), good chemical resistance.

Polymer: LCP

ISO designation: LCP-MD40

Productgroup: LCP

Brief description of the product family:

The trade name KEBAFLOW stands for a range of liquid crystalline polymers (LCP). KEBAFLOW's outstanding flowability enables the realization of extremely thin wall thicknesses. KEBAFLOW LCP is inherently flame retardant and exhibits very high heat resistance and good aging behavior.

Properties:

dimensionally stable, Thin wall thicknesses, good aging behavior, good fire behavior, high continuous used temperature, semi-crystalline

Typical areas of application:

Pressure cans, Crockery and cutlery, Coffee machines, LED housing, Luminaire housing, Relay, Bobbin, Plug

Industries:

Automotive, Electrical and electronics industry, Household appliances, Food processing industry, Aviation Industry, Mechanical Engineering

Physical properties

Density in kg/m ³ ISO 1183-1	1700.00
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Mechanical properties

E-modulus in MPa ISO 527-1	8100
Breaking stress in MPa ISO 527-1	90.0
Elongation at break in % ISO 527-1	3.0
Impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eU	31.0
Notched impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eA	4.0

Rheological properties

Shrinkage in flow direction in % ISO 294-4	0.01
Shrinkage transverse to the flow direction in % ISO 294-4	0.50

Thermal properties

Heat deflection temperature HDT (1.80 MPa) in °C ISO 75-1/-2	230.0
Fire behavior (0.8 mm wall thickness) IEC 60695-11-10	V0

Processing instructions:**Pre-drying:**

Dryer type: dry air dryer.

Temperature: 150 – 170°C

Drying time: 4-6 h

Residual moisture: < 0.01%.

Temperatures:

Melt temperature: 335 – 345°C

Mold temperature: 80 – 120 °C

Dosage:

Shot volume = 50-80% of the maximum metering volume.

Back pressure: very low (0 – 30 bar spec.)

Dosing time: Corresponds approx. to cooling time

Injection unit:

Screw: 3-zone screw with non-return valve

Nozzle: Open nozzle or shut-off nozzle (recommended)

Wear protection: Wear and corrosion protected according to the machine manufacturer's recommendation for LCP glass fiber reinforced

The most important processing instructions in brief:

- Ensure good drying! Ensure moisture content < 0.01%.
- Inject as fast as possible, if necessary use machine with pressure accumulator.
- Injection speed has a strong influence on the achievable flow path length
- Avoid excessively thick walls
- Ensure good venting

Legal notices:

The information in this data sheet is based on our current knowledge and experience. Due to the wide range of possible influences during processing and application of our products, they do not exempt the processor from carrying out his own tests and trials. A legally binding assurance of certain properties or suitability for a specific application cannot be derived from our information.

* FE products are development products which are still in the trial phase. Technical data may still change in the course of product and process development. No final decision has yet been made on the commercialization of FE products. We reserve the right to discontinue the manufacture of FE products without giving further reasons.

Created at: 25.04.2024

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