

Technical data

KEBATRON PPS L1030RC2 black

KEBATRON PPS L1030RC2 black is an electrically conductive, 30% carbon fibre reinforced PPS compound, which is manufactured with post-industrial recycled carbon fibres. A large application potential lies in the substitution of metal housings (metal replacement/lightweight construction) with regard to EMC-compliant component design. As a housing material, KEBATRON PPS L1030RC2 black offers the advantage of electromagnetic shielding without additional surface treatments.

Polymer: PPS

ISO designation: PPS-L-CF30

Productgroup: PPS, Shielding compounds

Brief description of the product family:

Under the trade name KEBATRON, we offer a range of high-performance compounds based on PPS. KEBATRON offers high continuous service temperature, good aging behavior, high strength and stiffness, is inherently flame retardant and has exceptionally good chemical resistance.

Properties:

antistatic, dimensionally stable, electrically conductive, good chemical resistance, good aging behavior, good fire behavior, high continuous used temperature, High strength, High stiffness, High wear resistance, semi-crystalline

Typical areas of application:

Valve caps, Distributor, Fasteners, Gears, Housing, Sliding elements, Plain bearing, Piston, Couplings, Bearing bushes, Pumps and motors, Pump housing, Sensors, Bobbin, Structural components, Transport chains, Valves

Industries:

Automotive, Electrical and electronics industry, Household appliances, Industry, Aviation Industry, Mechanical Engineering, Sports & Recreation

Physical properties

Density in kg/m ³ ISO 1183-1	1430.00
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Mechanical properties

E-modulus in MPa ISO 527-1	24500
Breaking stress in MPa ISO 527-1	180.0
Elongation at break in % ISO 527-1	0.8
Impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eU	24.0
Notched impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eA	5.0

Rheological properties

Shrinkage in flow direction in % ISO 294-4	0.02
Shrinkage transverse to the flow direction in % ISO 294-4	0.35

Thermal properties

Thermal conductivity in plane in W/mK DIN EN 821	1.17
Thermal conductivity through plane in W/mK DIN EN 821	0.65

Thermal properties

Fire behavior (1.6 mm wall thickness) | IEC 60695-11-10

V0

Processing instructions:

Pre-drying:

Dryer type: dry air dryer (!).

Temperature: 120 – 140 °C

drying time: 4 – 8 h

Recommended max. residual moisture: < 0.02 %.

Recommended basic settings:

melt temperature: 320 – 340°C

Mold temperature: 140 – 180°C (As a rule of thumb, the higher the requirements, the higher the mold temperature).

Back pressure: < 10 bar (spec.)

The injection speed should be set as a slow – fast – slow profile. As a principle: as fast as possible, as slow as necessary.

Machine selection:

In the processing of KEBATRON PPS, wear- and corrosion-protected injection units have proven their worth. The injection unit should be selected so that the shot volume is 50 – 80% of the maximum metering volume. The dwell time should be kept as short as possible.

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.

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