

Technical data

KEBATRON PPS L3040G1

PPS-GF40, linear PPS, 40% glass fiber reinforced, hydrolysis stabilized

Polymer: PPS

ISO designation: PPS-L-GF40

Productgroup: PPS

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:

dimensionally stable, good aging behavior, good fire behavior, high continuous used temperature, High strength, hydrolysis stable, semi-crystalline

Typical areas of application:

Housing, Lamp socket, Pump housing, Sensors, Bobbin, Plug, Valve caps, Distributor

Industries:

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

Physical properties

Water absorption in % in Anlehnung an ISO 62	0.02
Density in kg/m ³ ISO 1183-1	1650.00

Mechanical properties

E-modulus in MPa ISO 527-1	16200
Breaking stress in MPa ISO 527-1	190.0
Elongation at break in % ISO 527-1	1.6
Impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eU	50.0
Notched impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eA	10.0

Rheological properties

Melt flow rate MFR (test condition)	300°C / 5 Kg
Melt flow rate MFR in g/10min ISO 1133	18.0

Thermal properties

Melting temperature (DSC, 10°C/min) in °C ISO 11357-1/-3	280.0
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Thermal properties

Heat deflection temperature HDT (1.80 MPa) in °C ISO 75-1/-2	260.0
Coefficient of thermal expansion in flow direction in E-6/K ISO 11359-1/-2	23.0
Coefficient of thermal expansion transverse to the flow direction in E-6/K ISO 11359-1/-2	31.0
Fire behavior (0.4 mm wall thickness) IEC 60695-11-10	V0
Fire behavior (0.8 mm wall thickness) IEC 60695-11-10	V0

Electrical properties

Contact resistance in Ohm*m IEC 60093	1e+14
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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:

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