

Technical data

KEBATER PET S02 505 nature

– preliminary data sheet –

PET, low viscosity, nucleated, impact modified for semi-crystalline injection molding into wear resistant components

Polymer: PET

ISO designation: PET-I

Productgroup: Tribocompounds, Our entire range

Brief description of the product family:

KEBATER is the trade name of our range of thermoplastic polyesters. KEBATER products are characterized by good stiffness and strength, excellent electrical properties, advantageous fire properties and a good price-performance ratio. The product range includes PBT and PBT blends in different variants: unreinforced and glass fiber reinforced, impact modified, flame retardant, warp optimized as well as other compounds tailored to special requirements.

Properties:

dimensionally stable, electrically isolating, good gliding properties, High wear resistance, semi-crystalline

Typical areas of application:

Actuating elements, Housing, Sliding elements, industrial goods, Piston, Toys, Sports & Leisure Articles

Industries:

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

Physical properties

Density in kg/m ³ ISO 1183-1	1350
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Mechanical properties

E-modulus in MPa ISO 527-1	2800
Yield stress in MPa ISO 527-1	70.0
Elongation at yield in % ISO 527-1	5.0
Elongation at break in % ISO 527-1	15.0
Impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eU	NB
Notched impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eA	4.0

Thermal properties

Melting temperature (DSC, 10°C/min) in °C ISO 11357-1/-3	250.0
Fire behavior (0.4 mm wall thickness) IEC 60695-11-10	HB
Fire behavior (0.8 mm wall thickness) IEC 60695-11-10	HB
Glass transition temperature in °C DIN EN ISO 11357-1	80.0
Fire behavior (1.6 mm wall thickness) IEC 60695-11-10	HB

Thermal properties

Fire behavior (3.2 mm wall thickness) IEC 60695-11-10	HB
Coefficient of thermal expansion in flow direction in E-6/K ISO 11359-1/-2	70 E-6 1/K
Coefficient of thermal expansion transverse to the flow direction in E-6/K ISO 11359-1/-2	70 E-6 1/K

Processing instructions:

Pre-drying:

Dryer type: dry air dryer.

Temperature: 100 – 120°C

Drying time: 3 – 6 h

Moisture content during processing: < 0.015%.

Recommended basic settings:

Melt temperature: 270 – 290°C

Mold temperature: 130 – 150 °C

Injection speed: medium to high

Back pressure: 40 – 80bar (spec.)

Machine selection:

Screw: 3-zone screw with non-return valve

Nozzle: Open nozzle or shut-off nozzle

Wear protection: Wear protected according to machine manufacturer's recommendation, suitable for processing fiber reinforced plastics

Injection unit: Shot volume = 50-80% of the maximum dosing volume

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: 19.04.2024

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