

Technical data

KEBATER PBT B510

PBT unreinforced, medium viscosity, injection molding grade with optimized toughness

Polymer: PBT

ISO designation: PBT-I

Productgroup: PBT

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, good chemical resistance, Good electrical properties, good gliding properties, good aging behavior, High wear resistance, semi-crystalline

Typical areas of application:

Connecting elements, Controls, Fasteners, Actuating elements, Cover, Electronic components, Housing, Handles, industrial goods, Switch, Toys, Sports & Leisure Articles, Plug, shockproof housing, Structural components

Industries:

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

Physical properties

Moisture absorption 23°C/50% r.h. in %. in Anlehnung an ISO 62	0.20
Density in kg/m ³ ISO 1183-1	1290.00

Mechanical properties

E-modulus in MPa ISO 527-1	2500
Elongation at yield in % ISO 527-1	3.5
Breaking stress in MPa ISO 527-1	58.0
Elongation at break in % ISO 527-1	25.0
Impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eU	100.0
Impact strength (Charpy) at -30°C in kJ/m ² ISO 179-1eU	100.0
Notched impact strength (Charpy) at 23°C in kJ/m ² ISO 179-1eA	6.0

Rheological properties

Melt flow rate MFR (test condition)	250°C / 2,16kg
Melt flow rate MFR in g/10min ISO 1133	30.0

Rheological properties

Shrinkage in flow direction in % ISO 294-4	1.50
Shrinkage transverse to the flow direction in % ISO 294-4	1.50

Thermal properties

Melting temperature (DSC, 10°C/min) in °C ISO 11357-1/-3	225.0
Heat deflection temperature HDT (1.80 MPa) in °C ISO 75-1/-2	60.0
Heat deflection temperature HDT (0.45 MPa) in °C ISO 75-1/-2	155.0
Fire behavior (0.8 mm wall thickness) IEC 60695-11-10	HB

Electrical properties

Contact resistance in Ohm*m IEC 60093	1e+15
Surface resistivity in ohms IEC 60093	1e+12
Dielectric strength in kV/mm IEC 60243-1	20

Processing instructions:**Pre-drying:**

Dryer type: dry air dryer.

Temperature: 100 – 120°C

Drying time: 2 – 4 h

Residual moisture: < 0.02%.

Temperatures:

Melt temperature: 245 – 260°C

Mold temperature: 80 – 120°C

Back pressure: max. 40 bar (specific)

Injection speed: medium to high

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.

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