

Polybutylenterephthalat (PBT)

General

PBT has very good mechanical and physical properties such as stiffness and toughness, heat resistance, friction and wear resistance, and excellent surface finish. The thermoplastic filament has excellent electrical insulation properties and typically high resistance to chemical and heat aging.

The thermoplastic polyester resin PBT is typically used in demanding applications in the electronics, electrical, automotive, mechanical engineering, chemical, household appliance and sporting goods industries.

advantageous

- High strength and rigidity
- Very good friction and wear behavior
- good impact resistance
- high temperature resistance up to 180°C
- Can also be used at minus temperatures down to -50°C

disadvantageous

- Narrow processing temperature range
- More difficult to process than PETG
- high printing plate temperatures and/or space heating required

Processing data

Printing temperature

240-260 °C

Heated bed temperature

160-200 °C

Drying temperature

120°C

Drying time

2-4h

Technical specifications

Shrinkage (ISO 294-4, 2577)	-	%
MFR (ISO 1133)	19	g/10min
Yield stress (ISO 527-1/-2)	59	MPa
Elongation at yield (ISO 527-1/-2)	8	%
Elongation at break (ISO 527-1/-2)	30	%
Tensile modulus (ISO 527-1/-2)	2600	MPa
Heat deflection temperature 0.45 MPa (ISO 75-1/2)	180	°C
Vicat softening temperature A (ASTM D1525)	-	°C
Thermal conductivity 23°C	-	W/(K*m)
Flammability (UL 94)	HB	
Density (ASTM D792)	1.31	g/cm ³