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PBT (*Polybutyleneterephthalate*)

Details

This material has excellent resistance to abrasion and creep. It has a low coefficient of friction and a low moisture absorption. PBT is chemically resistant to strong and weak acids. It is used in gears, bushings and bearings.

Key Features

Resistant to abrasion and creep • Low moisture absorption

Thermal Properties

Property	Value
Heat deflection [°C]	160
Glass transition temperature [°C]	22
Vicat softening temperature [°C]	150
Coefficient of thermal expansion [$K^{-1} \cdot 10^{-6}$]	108
Thermal conductivity [$W/m \cdot K$]	0.27
Specific heat capacity [$J/kg \cdot K$]	1421
Melting point [°C]	223

Mechanical Properties

Property	Value
Tensile strength [MPa]	82.7
Modulus of elasticity [GPa]	4
Flexural strength [MPa]	80

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Flexural modulus [GPa]	3.83
Hardness	170
Impact strength [KJ/m ²]	4
Elongation at break [%]	130

Physical Properties

Property	Value
Density [g/cm ³]	1.52
Water Absorption [%]	0.1
Electrical Resistivity [ohm-cm]	14×10 ¹⁵

