



# PBT

## Alternative Designations

Polybutylene terephthalate, Arnite

## Key Features

- Resistant to abrasion and creep
- Low moisture absorption
- Good impact and dimensional stability
- Low co-efficient of thermal expansion

## Description

PBT is a semicrystalline polymer with excellent physical, chemical and electrical properties. It has a high melting point and good dimensional stability. PBT is also resistant to heat, UV light and chemicals. 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.

## Mechanical Properties

Tensile modulus	9800 MPa
Tensile strength	130 MPa
Elongation at break	2.5%
Flexural strength	210 MPa
Flexural modulus	9 GPa
Hardness (Shore D)	170

## Thermal Properties

Melting temperature (20°C/min)	215°C
Heat deflection temperature (1.80 MPa)	210°C
Heat deflection temperature (0.45 MPa)	220°C
Softening temperature	150°C

## Physical Properties

Density	1.52 g/cm <sup>3</sup>
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## Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit [Materialdatacenter.com](https://Materialdatacenter.com) for further information on this material.