



PBT - Polybutylene Terephthalate

Characteristics

- * Superior Chemical Resistance
- * Low Coefficient of Thermal Expansion
- * Outstanding Dielectric Strength
- * Good Impact Strength and Ductility
- * Low Temperature Performance to - 40 Degree F

Description

PBT Polyester is a semi-crystalline thermoplastic offering superior mechanical properties and chemical resistance. It offers a low coefficient of friction and requires little or no lubrication in surface slip or bearing applications. Outstanding Dielectric strength coupled with good impact strength and ductility make it a good choice for many demanding electrical applications.

Forms Available

ROD .375 to 6.000 " diameter, Lengths to 120"
 TUBE Custom produced as requested
 PLATE .500" to 2.500" thick, Widths to 24", Lengths to 48"
 COLOR Black

Typical Property Values

MECHANICAL @ 73°F

Specific Gravity	
Tensile Strength	psi
Tensile Modulus of Elasticity	psi
Tensile Elongation (at Break)	%
Flexural Strength	psi
Flexural Modulus of Elasticity	psi
Shear Strength	psi
Compressive Strength	psi
Compressive Modulus of Elasticity	psi
Rockwell Hardness	R Scale
Izod Impact Strength, Notched	ft-lbs/in. of notch
Coefficient of Friction, Dynamic (Dry vs. Steel)	
Limiting PV (4 :1 Safety Factor Applied)	ft.lbs/in. ² min
Wear Factor	in ³ -min/ft.lbs. hr.
Water Absorption 24 hrs	% by wt.

THERMAL

Coefficient of Linear Expansion (-40°F to 300°F)	in./in./°F
Heat Deflection Temperature @264 psi	°F
Melting Point (Crystalline)	°F
Continuous Service Temperature in Air	°F
Thermal Conductivity	°F

ELECTRICAL

Dielectric Strength, Short Term	Volts/mil
Volume Resistivity	Ohms-cm
Dielectric Constant	60 Hz
Dissipation Factor	60 Hz

PBT Polyester

1.31
9,400
425,000
50
11,600
420,000
11,000
120
0.7
0.07
4.5 x 10 ⁻⁵
200
420
221
410
4.5 x 10 ¹⁶
3.30
0.002

(Properties listed above are provided for reference only, they should not be used for design specifications or quality control)