



## ERTALYTE® PET-P

### Characteristics

- \* Good for Both Wet and Dry Environments
- \* High Strength and Rigidity
- \* Excellent Stain Resistance
- \* Good Wear Resistance
- \* Excellent Dimensional Stability
- \* Better Resistance to Acids than Nylon or Acetal

### Description

**Ertalylte** is an unreinforced, semi-crystalline thermoplastic polyester based polyethylene terephthalate (PET-P). It is characterized as having the best dimensional stability coupled with excellent wear resistance, a low coefficient of friction, high strength, and resistance to moderate acid solutions. Ertalylte's properties make it especially suitable for the manufacture of precision mechanical parts which are capable of sustaining high loads and enduring wear conditions. Ertalylte offers good chemical and abrasion resistance. Its low moisture absorption enables mechanical and electrical properties to remain virtually unaffected by moisture. Ertalylte can be machined to precise detail on standard metal working equipment.

### Forms Available

ROD .375 to 7.00 " diameter, Lengths to 12 feet  
 BUSHING .787" - 7.87" OD, .472" - 6.3" ID  
 PLATE .078" to 4.000" thick, Widths to 24", Lengths to 48"  
 COLOR White or 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, 10% Deformation	psi
Compressive Modulus of Elasticity	psi
Rockwell Hardness	M 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. <sup>2</sup> min
Wear Factor	in <sup>3</sup> -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
Surface Resistivity	Ohms/Sq.
Dielectric Constant	1 MHz
Dissipation Factor	1 MHz

#### Ertalylte® PET-P

1.41
12,400
460,000
20
18,000
490,000
8,000
15,000
420,000
93
0.50
0.20
2,800
60
0.07
$3.3 \times 10^{-5}$
240
491
210
2.00
385
$>10^{13}$
3.40
0.020

#### Ertalylte® TX

1.44
10,500
500,000
5
14,000
360,000
8,500
15,250
400,000
94
0.40
0.19
6,000
35
0.06
$4.5 \times 10^{-5}$
180
491
210
1.90
533
$>10^{13}$
3.60
0.020

( Properties listed above are provided for reference only, they should not be used for design specifications or quality control , Ertalylte is a registered Trademark of Quadrant EPP )