

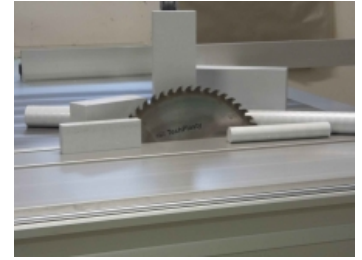
# PET-GL - polyethylene terephthalate internally lubricated

**Other material names PET-GL:** Ertalyte TX, PET-SP, PET+solid lubricant

**Material group:** PET

PET-GL is an internally lubricated thermoplastic polyester providing enhanced wear and inertness over general purpose nylon (PA) and acetal (POM) products. Containing uniformly dispersed solid lubricant, PET-GL provides a lower wear rate and coefficient of friction than unmodified polyesters like PET or PBT and even internally lubricated materials like Delrin® AF blend.

PET-GL excels under both high pressure and velocity conditions. It is also ideally suited for applications involving soft metal and plastic mating surfaces.



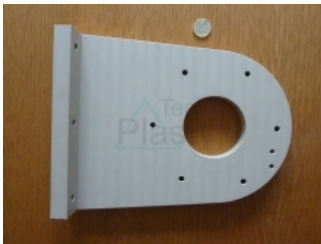
## Color of material:

Gray



## Typical applications:

- Manifolds machined
- Food manufacturing and processing equipment
- Carousel
- Filter Track
- Locating Disk
- Rings



## The material is used in:

Beverage industry  
Food industry  
Automobile industry  
Packaging industry  
Dairy industry  
Canning industry  
Meat processing industry  
Engineering industry  
Paper industry  
Waste Management  
Construction machines  
Production of single-purpose machines

## Features:

- Good for both wet and dry environments
- High strength and rigidity -- ideal for close tolerance parts
- Excellent stain resistance
- Good wear resistance and excellent dimensional stability

- Better resistance to acids than nylon or acetal

**Material availability:** Some sizes are in stock

Material properties table

<b>Specific weight</b>	1.43 g/cm <sup>3</sup>
<b>Yield strength</b>	75 N/mm <sup>2</sup>
<b>Allowable mean pressure deformation 1%</b>	24.00 N/mm <sup>2</sup>
<b>Allowable mean pressure deformation 2%</b>	47.00 N/mm <sup>2</sup>
<b>Allowable mean pressure deformation 5%</b>	95.00 N/mm <sup>2</sup>
<b>p.v dry limit</b>	0.25 MPa.m/s
<b>Flexural strength</b>	115 N/mm <sup>2</sup>
<b>Tensibility</b>	5 %
<b>Tensile modulus</b>	2 600 N/mm <sup>2</sup>
<b>Impact toughness</b>	30
<b>Notched toughness</b>	>2 kJ/m <sup>2</sup>
<b>Ball hardness</b>	160 N/mm <sup>2</sup>
<b>Friction coefficient</b>	0.16
<b>Sliding wear</b>	0.10 um/km
<b>Antistatic material</b>	No
<b>Permittivity</b>	3.40
<b>Specific internal resistance</b>	10 <sup>15</sup> Ω
<b>Specific surface resistance</b>	10 <sup>14</sup> Ω.cm
<b>Melting point</b>	255 °C
<b>Thermal expansion</b>	8 10 <sup>-5</sup> /K
<b>Thermal conductivity</b>	0.23 W/(K.m)
<b>Permanent use temperature</b>	-20 ; 110 °C
<b>Transient temperature of use</b>	-20 ; 160 °C
<b>Absorbability</b>	0,2 %
<b>Water absorption</b>	0,4 %
<b>Resistance - oils</b>	resistant
<b>Acid resistance</b>	conditionally resistant
<b>Durability - alcali</b>	conditionally resistant
<b>Food contact</b>	No
<b>Special features</b>	• Self-lubricating

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