PET

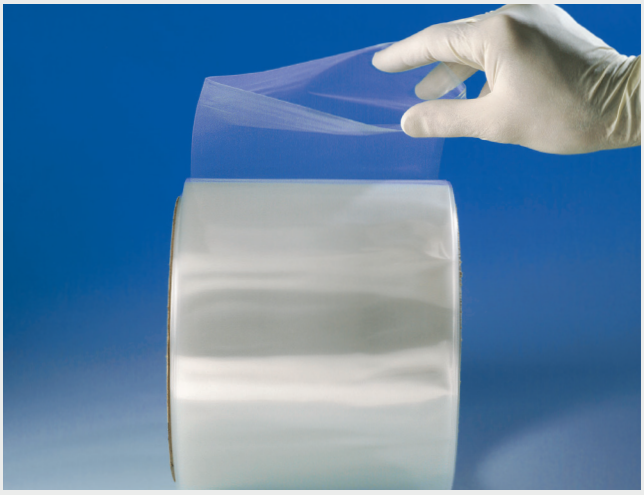
PET – Polyethylene Terephthalate

Custom Sizes Available

OVERVIEW

PET polyester has a distinct advantage – it has the lowest recovery temperature at 180° F (82° C) of all resins Zeus extrudes. PET is also very lightweight, has good dielectric strength, excellent clarity and is extremely strong.

This ubiquitous material has a wide range of applications from packaging aids to protection for light bulbs.



PET has become the polymer of choice for price sensitive applications requiring excellent mechanical and physical properties.

HARDNESS

DIELECTRIC STRENGTH

MOISTURE ABSORPTION

APPLICATIONS

- *Encapsulation (electrical)*
- *Encapsulation (lighting)*

PRODUCTS

- *Tubing*
- *PET Lay-Flat® tubing*
- *PET Lay-Flat® heat shrink*

KEY PROPERTIES

- *UV resistant (however UV light will affect thermal properties)*
- *Shrink-back temperature begins at 180° F / 82° C*
- *Operating temperature up to 293° F / 145° C*
- *Extremely low water absorption*

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The information presented in this publication is believed to be accurate and is not intended to constitute a specification. Property characteristics are dramatically impacted by geometry and processing method. Therefore, properties of PET extruded parts may vary. In some instances, data may not be available for publication and will be notated as "na" where applicable. These tables are meant to serve as a general guideline only. Users should evaluate the material to determine suitability for their own particular application.

PHYSICAL	ASTM	PET
Density (g/cc)	D792	1.22
Water Absorption (%)	D570	0.487
Standard Percent Crystillinity (%)		na
Refraction Index		na
Radiation Resistance (MRad)		na
Oxygen Index (%)	D2863	na

MECHANICAL	ASTM	PET
Hardness, Shore D	D2240	80
Ultimate Tensile Strength (MPa)	D638	34
Elongation at Break (%)	D638	85
Modulus of Elasticity (GPa)	D638	2.92
Flexural Modulus (GPa)	D790	2.41
Coefficient of Friction		0.24

ELECTRICAL	ASTM	PET
Volume Resistivity (Ω-cm)	D257	4.6×10^{16}
Dielectric Constant, 1 MHz	D150	3.18
Dielectric Strength (V/mil)	D149	2500

THERMAL	ASTM	PET
Thermal Conductivity (W/m-K)	C117	0.14
Maximum Service Temp, Air (°C)		136
Minimum Service Temp, Air (°C)		- 20
Melt Temp (°C)		245
T_g Glass Temp (°C)		74
Decomposition Temp (°C)	E1131	na
Coefficient of Thermal Expansion, linear 20° (µm/m-°C)	D696	73

- OVER 50 YEARS OF INDUSTRY SOLUTIONS -

Zeus delivers precision polymer solutions that transform businesses, markets and lives. We have dedicated ourselves to building partnerships, products and services for the benefit of our customers.

Headquartered in Orangeburg, South Carolina, Zeus employs approximately 1,300 people and operates multiple facilities around the world.