

PET

Polyethylene terephthalate

OVERVIEW

PET is a clear, strong, and lightweight plastic that is widely used for packaging foods and beverages, especially convenience-sized soft drinks, juices and water. It is also popular for packaging foods, cooking oils, mouthwash, shampoo, liquid hand soap, window cleaner, even tennis balls. Special grades of PET are used for carry-home food containers and prepared food trays that can be warmed in the oven or microwave. PET is characterized as having high tensile strength, exceptional dimensional stability coupled with excellent wear resistance, a low coefficient of friction, and resistance to moderately acidic solutions.

APPLICATIONS & USES

The majority of the world's PET production is for synthetic fibers (in excess of 60%), with bottle production accounting for around 30% of global demand.

- Plastic bottles: water, soft drinks, oils, soap, shampoo, mouthwash, cleaners
- Packaging trays: frozen dinners, tennis ball containers, general purpose trays
- PET film (Mylar): thermal insulation, space blankets, magnetic tape, pressure sensitive adhesives

TECHNICAL DATA

PROPERTY	VALUE
Friction Coefficient	0.2
Tensile Strength	7000 PSI
Flexural Strength	12500 PSI
Shear Strength	9240 PSI
Impact Strength, Notched Izod	0.6 Ft-lbs/Inch
Hardness (Rockwell & Burnell)	R112
Deflection Temperature (264 PSI)	215F
Melting Point	491F
Elongation	20%

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