



# PET

## Alternative Designations

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Polyethylene terephthalate

## Key Features

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Rigid • Flame retardant • Resistant to heat and creep

## Description

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It is a strong, lightweight material that is resistant to breaking and shattering. PET material can be clear or opaque, and can be dyed or printed with designs. It is also recyclable. This material has a melting point of about 244°C; hence, molding is done at a high temperature. It is a hard material with low moisture absorption. It has good resistance to chemicals as well as good strength and stiffness. It is used for production of capacitors, recording tapes, bottles and electrical components.

## Mechanical Properties

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Tensile modulus	3400 MPa
Tensile strength	91 MPa
Elongation at break	15%
Flexural strength	134 MPa
Flexural modulus	3.4 GPa
Hardness (Shore D)	195

## Thermal Properties

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Melting temperature (20°C/min)	244°C
Heat deflection temperature (1.80 MPa)	69°C
Heat deflection temperature (0.45 MPa)	73°C
Softening temperature	75 – 79°C

## Physical Properties

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Density	1.39 g/cm <sup>3</sup>
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## Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit [Materialdatacenter.com](https://Materialdatacenter.com) for further information on this material.