Data Sheet

PET

Alternative Designations

Polyethylene terephthalate

Key Features

Rigid • Flame retardant • Resistant to heat and creep

Description

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

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

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

Density	1.39 g/cm^3

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.