Xometry

Datasheet ▸

PET

(Polyethylene terephthalate)

Details

This material has a melting point of about 270°C; hence, molding is done at a high temperature. It is a hard material with low moisture absorption. It has good resistance tochemicals as well as good strength and stiffness. It is used for production of capacitors, recording tapes, bottles and electrical components.

Key Features

Rigid • Flame retardant • Resistant to heat and creep

Thermal Properties

Property	Value
Heat deflection [°C]	80
Glass transition temperature [°C]	70
Vicat softening temperature [°C]	74
Coefficient of thermal expansion [K-1 · 10-6]	60
Thermal conductivity [W/m · K]	0.28
Specific heat capacity [J/kg · K]	1100
Melting point [°C]	255

Mechanical Properties

Property	Value
Tensile strength [MPa]	85
Modulus of elasticity [GPa]	3
Flexural strength [MPa]	80

Xometry

Datasheet

Flexural modulus [GPa]	1
Hardness	170
Impact strength [KJ/m^2]	2
Elongation at break [%]	15

PhysicalProperties

Property	Value
Density [g/cm^3]	1.38
Water Absorption [%]	0.1
Electrical Resistivity [ohm-cm]	16×10^{15}