Xometry

Datasheet ▸

LDPE

Details

This is the most flexible member of the polyethylene family. It offers good resistance to stress and pliability with good strength and toughness. It is lightweight and translucent. It is commonly used in food containers, toys, industrial parts and medical products.

Key Features

Flexible • Lightweight • Translucent • Resistant to stress

Thermal Properties

Property	Value
Heat deflection [°C]	48
Glass transition temperature [°C]	-110
Vicat softening temperature [°C]	89
Coefficient of thermal expansion [K-1 · 10-6]	100
Thermal conductivity [W/m · K]	0.33
Specific heat capacity [J/kg · K]	1900
Melting point [°C]	115

Note: All material data listed in Xometry's data sheets is sourced from trusted Original Equipment Manufacturers (OEMs), material distributors, and databases.

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Mechanical Properties

Property	Value
Tensile strength [MPa]	10
Modulus of elasticity [GPa]	0.39
Flexural strength [MPa]	10.3
Flexural modulus [GPa]	0.199
Hardness	55
Elongation at break [%]	100

Physical Properties

Property	Value
Density [g/cm³]	0.918
Water Absorption [%]	0.005
Electrical Resistivity [ohm-cm]	0.917×10^{15}

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