

Data Sheet: PE

(Polyethylene)

Details

This material has good strength – to – ratio. It is resistant to chemicals, impermeable and exhibits good electrical insulation properties. Furthermore, it is highly ductile, possesses good impact resistance and can work well in both hot and cold temperatures. It is widely used for packaging agricultural products, production of plumbing products and medical equipment.

Key Features

Resistant to chemicals • Impermeable • Exhibits good electrical insulation properties

Thermal Properties

Property	Value
Heat deflection [°C]	95
Glass transition temperature [°C]	-150
Vicat softening temperature [°C]	128
Coefficient of thermal expansion [K-1 · 10-6]	20
Thermal conductivity [W/m · K]	0.28
Specific heat capacity [J/kg · K]	3200
Melting point [°C]	138

Mechanical Properties

Property	Value
Tensile strength [MPa]	21
Modulus of elasticity [GPa]	0.089
Flexural strength [MPa]	26

Flexural modulus [GPa]	0.08
Hardness	64
Elongation at break [%]	11

Physical Properties

Property	Value
Density [g/cm ³]	0.93
Water Absorption [%]	0.02
Electrical Resistivity [ohm-cm]	16×10^{15}

Reference

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