Data Sheet

Polyethylene (PE)

Alternative Designations

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Key Features

Resistant to chemicals • Impermeable • Exhibits good electrical insulation properties

Description

It is made from the monomer ethylene, which is derived from petroleum. 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.

Mechanical Properties

Tensile strength	21 MPa
Elongation at break	11%
Flexural strength	26 MPa
Flexural modulus	0.08 GPa
Hardness (Shore D)	64

Thermal Properties

Melting temperature (20°C/min)	138°C
Heat deflection temperature (1.80 MPa)	95°C
Softening temperature	128°C

Physical Properties

Density	0.93 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.