

General HDPE and PP Polyolefin Properties

Mechanical

Excellent flexibility for unstable soils
Excellent fatigue resistance
Excellent abrasion resistance
Excellent balance of stiffness and impact resistance
Excellent low specific weight
Good slurry abrasion resistance
Excellent flow capacity and reduced friction loss (no deposits and encrustations)
Excellent impact resistance to external loads and vibrations
Excellent creep strength
Excellent pressure resistance up to 25 bar (special products up to 50 bar)
Excellent scratch tolerant during transport, stocking, installation and in operation

Chemical

Excellent resistance to almost all kind of microbiological attack
Excellent chemical resistance to most chemical and aggressive media
Excellent Corrosion resistance
Excellent resistance to water absorption and swelling
Non-toxic
Non-tasting (food approval)
Non-contaminating
Fair gas permeability (might be increased by incorporated aluminium layer)

Thermal

Wide Service temperature range of -40°C to 80°C
Excellent low brittleness in low temperatures
Excellent Frost resistance
Fair thermal expansion coefficient

Weather Resistance

Excellent weather-resistance of uv-stabilised material grades

Excellent micro-crack resistance of stabilised material grades

Excellent heat resistance of stabilised material grades

Economical

Excellent maintenance free design life

Excellent durability with life expectancy of up to 125 years depending on application

Excellent cost saving fast and easy installation

Excellent narrow trenches or installation area needed only

Excellent light weight in view of transport and installations

Environmental

Excellent suitability for potable water

Excellent low noise emission

Excellent energy neutral end-recycling without emissions

Excellent recycling for material multiuse in lower quality products

Excellent energy ratio during raw material production

Good energy ratio during product manufacturing

Electrical

Excellent electrical isolation

Production

Wide range of production methods as extruding, injection-moulding, blow-moulding,

Connections

Excellent fully fused jointing with zero leak-rate

Wide range of jointing techniques

Design

Multiple color choice depending on products available

Excellent product surfaces

Unlimited product designs

Unlimited size variety

Approvals / Experiences

Listed, normed and approved materials

Experienced and reliable materials

Available materials