

HDPE**HDPE PN049-030-122****HIGH DENSITY POLYETHYLENE (HDPE) PE100 PIPE GRADE**

This high-density polyethylene grade has a broad or bimodal molecular-weight distribution that provides a favourable balance of rigidity and toughness together with strong creep resistance and low sag during processing. Classified as PE100, it delivers high long-term hydrostatic strength with excellent resistance to both slow and rapid crack growth, and is supplied in the natural (uncompounded) form.

Typical Application

- Pressurized water and gas pipelines
- Industrial pressure piping
- Double-wall corrugated pipe
- Hollow-wall spiral-wound pipe
- Silicon-core pipe
- Agricultural irrigation pipe
- Aluminum-plastic composite pipe
- Cross-linked polyethylene (PEX) pipe via reactive (silane) extrusion

Product Characteristics

- Broad or bimodal molecular-weight distribution
- Strong creep resistance
- Balanced rigidity and toughness
- Low sag during processing
- Excellent slow crack growth (SCG) and rapid crack propagation (RCP) resistance
- PE100 classification (MRS 10.0 MPa)

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow (190°C/2.16kg)	ASTM D1238	0.24	g/10 min
Density		0.950	g/cm ³
Tensile Stress at Yield		24	MPa
Tensile Modulus		1100	MPa
Elongation at Break (23°C, 50 mm/min)		300	%

1. The nominal properties reported herein are typical of the product and do not reflect normal testing variance; they should not be used for specification purposes.

2. The producer's own global catalogue reports melt flow for this grade as approximately 0.3 g/10 min under a heavier 5 kg test load (MI5); the 0.24 g/10 min value given here corresponds to the standard 2.16 kg condition and is consistent with that figure.