

HDPE**HDPE YGH041T****HIGH DENSITY POLYETHYLENE (HDPE)**

This black high-density polyethylene (HDPE) pipe-grade resin contains uniformly dispersed carbon particles together with a stabilizer package that deliver high mechanical strength, excellent weather resistance, long-term stability, and strong resistance to both rapid crack propagation and slow crack growth. It is formulated as a PE 100 base resin for pressurized pipe applications.

Typical Application

- Water pipes
- Gas pipes
- Drainage and seawater discharge pipes
- Thin-wall bellows
- Industrial pipes

Product Characteristics

- High-quality mechanical strength
- Excellent weather resistance
- Long-term stability
- Excellent resistance to rapid crack propagation
- Slow crack growth

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate (190°C/2.16kg)		0.27	g/10 min
Tensile Strength at Yield		24.2	MPa
Tensile Modulus		990	MPa
Tensile Fracture Nominal Strain		590	%
Density		0.960	g/cm ³
Oxidative Induction Time (210°C)		45.1	min

1. Melt flow rate quality index range is 0.26-0.44 g/10 min, tensile strength at yield quality index is ≥ 23.0 MPa, tensile modulus quality index is ≥ 960 MPa, tensile fracture nominal strain quality index is $\geq 550\%$, density quality index is 0.9600 ± 0.0030 g/cm³, and oxidative induction time quality index is ≥ 25 min; values above are the producer's reported typical results within those ranges.

2. 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.