



Bimodal Linear Low Density Polyethylene (LLDPE)

1. Product Overview

PE is one of the most important general-purpose plastics. Due to different process routes and conditions, the molecular structure (branching degree), molecular weight, density, and crystallinity of the produced PE are different, leading to different physical properties and application ranges.

Bimodal PE is a polyethylene resin with a bimodal molecular weight distribution curve. Compared with ordinary PE, bimodal PE has both excellent physical and mechanical properties and superior processing performance. The high molecular weight part ensures its physical and mechanical strength, while the low molecular weight part acts as a lubricant in the resin to improve the processability of the product.

2. Product Specifications

Product Parameter	Test Method	Unit	ML2202	MM2002
Melt Flow Rate	GB/T 3682.1-2018	g/10min (190°C 2.16kg)	0.2	0.2
		g/10min (190°C 21.6kg)	22	20
Density	GB/T 1033.2-2010	kg/m ³	923	931
Moisture Content	SH/T 1770-2010	% (mass fraction)	0.03	0.03
Falling Dart Impact Strength	GB/T 9639.1-2008	g(F ₅₀)	300	300
Tensile Strength	GB/T 1040.3-2006	MPa Longitudinal	50	50
		MPa Transverse	35	40
Tensile Elongation at Break	GB/T 1040.3-2006	% Longitudinal	600	550
		% Transverse	900	800
Tear Strength	GB/T 16578.1-2008	kN/m Longitudinal	3	2
		kN/m Transverse	7	10

3. Application Fields

- Low-smoke halogen-free cable compound
- Film packaging
- Plastic injection molded parts