LLDPE

LLDPE L1221FA

LINEAR LOW DENSITY POLYETHYLENE (LLDPE)

L1221FA is a Linear low-density polyethylene (LLDPE) copolymer resin containing butene (C_4H_8) as the comonomer (Ethylene-alpha-olefin-copolymer) without Slip and Antiblocking agent. It is recommended for general purpose bag with high productivity and can be blended with HDPE and LDPE to improve seal and tear strength.

Typical Application	Product Characteristics	International Compliance
• General purpose bag	• High productivity	• U.S FDA 21 CFR 177.1520
• Lamination film	• High elongation	• Regulation (EU) No.10/2011
• Stretch cling film	• Good optical properties	• China Standard GB 4806.6-2016
	• Food contact applicable	• Japan – JHOSPA (JCII)

Film Properties

Properties	Test Method	Typical Value	Unit
Tensile Strength at Yield	ASTM D 882	MD: 110*, TD: 100*	kg/cm²
Tensile Strength at Break	ASTM D 882	MD: 376*, TD: 280*	kg/cm²
Tensile Modulus, 2% Secant	ASTM D 882	MD: 1420*, TD: 1610*	kg/cm²
Elongation at Break	ASTM D 882	MD: 800*, TD: 910*	%
Elmendorf Tear Strength	ASTM D 1922	MD: 200*, TD: 300*	g
Dart Impact Strength	ASTM D 1709	100*	g
Haze	ASTM D 1003	10*	%
Gloss	ASTM D 2457	65*	GU

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow Rate	ASTM D 1238 @ 190 °C, 2.16 kg	2.0	g/10 min
Density	ASTM D 1505	0.918	g/cm³
Melting Point	ASTM D 2117	120	°C
Viscat Softening Point	ASTM D 1525	99	°C
Brittleness Temperature	ASTM D 746	< -70	°C

Processing Guidelines

The actual extrusion condition depends on type of using machine, size and film thickness of product required. Generally, Melt temperature should be 180-200 °C with Blow up ratio (BUR) 2-3 times of die diameter.

1. The given values are typical values measured on the product. Values herein are not to be constructed as a product specification.

2. Conversion factor for changing unit from kg/cm² to MPa is divided by 10.20.

3. (*) Properties obtained from experiments on a pilot line, Film thickness 25 microns, BUR 2.5:1, MD = Machine Direction, TD = Transverse Direction.