LLDPE

LLDPE DFDA7042

LINEAR LOW DENSITY POLYETHYLENE (LLDPE)

This grade is a butene-comonomer linear low-density polyethylene (LLDPE) manufactured by gas-phase polymerization for blown-film extrusion. It combines high tensile strength, toughness and rigidity with good heat and cold resistance, environmental stress-crack resistance, and impact and puncture resistance. Films produced from this resin offer excellent optical clarity, high gloss, and resistance to aging, acids, alkalis and organic solvents, making it well suited to a broad range of thin-gauge packaging and agricultural film applications.

Typical Application	Product Characteristics	International Compliance
• Thin film • Agricultural film • Packaging bags • Lamination film • General-purpose blown film	• High gloss and excellent draw-down in blown-film processing • Good balance of tensile strength, toughness and rigidity • Good environmental stress-crack resistance and puncture resistance	• FDA 21 CFR 177.1520 (food contact) • Food-contact hygiene compliant • RoHS

Film Properties

Properties	Test Method	Typical Value	Unit
Dart Drop Impact	ASTM D1709 Method A	66	g
Elmendorf Tear Strength (MD/TD)	ASTM D1922	85/400	g
Gloss (45°)	ASTM D2457	76	-
Secant Modulus, 1% (MD/TD)	ASTM D882	190/220	MPa

Physical Properties

Properties	Test Method	Typical Value	Unit
Melt Flow (190°C/2.16kg)	ASTM D1238	2.0	g/10 min
Density	ASTM D792	0.920	g/cm³
Tensile Strength at Yield		≥10	MPa
Tensile Strength at Break		≥16	MPa
Elongation at Break		≥750	%
Haze		≤12	%
Fish Eyes (0.8 mm)		≤2	pcs/1520 cm²
Fish Eyes (0.4 mm)		≤10	pcs/1520 cm²

1. Physical and mechanical values are typical values published in the producer's family data sheet for this commercial grade code; dart impact, tear strength, gloss and secant modulus are supplemented from an equivalent blown-film datasheet for the same grade code, measured on 25.4 µm (1.0 mil) blown film at a 2.5 blow-up ratio, since these are not published in the family catalog.
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.