

mLLDPE

mLLDPE Exceed m 2018

METALLOCENE LINEAR LOW-DENSITY POLYETHYLENE (mLLDPE)

This grade is an ethylene 1-hexene copolymer metallocene linear low-density polyethylene resin. Films made from this resin exhibit outstanding tensile strength, impact strength, and puncture resistance. These superior strength properties, combined with excellent drawability, make it a versatile packaging film resin, and its higher melt index also makes it well suited for blending into LDPE-rich films. TNPP process aid is not intentionally added to this resin.

Typical Application	Product Characteristics	International Compliance
• Agricultural Film • Bag in Box • Barrier Food Packaging • Blown Film • Bread Bags • Food Packaging • Form Fill And Seal Packaging • Freezer Film • General Packaging • Lamination Film • Multilayer Packaging Film • Overwrap Film • Packaging Films • Premium Trash Bags • Stand Up Pouches • Trash Bags	• Antiblock 2500 ppm and slip 800 ppm additive package as standard • Process aid and thermal stabilizer included as standard • Supplied in pellet form	• FDA 21 CFR 177.1520 (food-contact) — compliance documented at the producer level; written Statement of Compliance supplied per lot at order

Film Properties

Properties	Test Method	Typical Value	Unit
Tensile Strength at Yield MD	ASTM D882	9.0	MPa
Tensile Strength at Yield TD	ASTM D882	9.7	MPa
Tensile Strength at Break MD	ASTM D882	50	MPa
Tensile Strength at Break TD	ASTM D882	42	MPa
Elongation at Break MD	ASTM D882	560	%
Elongation at Break TD	ASTM D882	620	%
Secant Modulus MD - 1% Secant	ASTM D882	179	MPa
Secant Modulus TD - 1% Secant	ASTM D882	186	MPa
Dart Drop Impact	ASTM D1709A	500	g
Elmendorf Tear Strength MD	ASTM D1922	330	g
Elmendorf Tear Strength TD	ASTM D1922	490	g

Puncture Force		36	N
Puncture Energy		1.9	J
Gloss (45°)	ASTM D2457	50	
Haze	ASTM D1003	14	%

Physical Properties

Properties	Test Method	Typical Value	Unit
Density / Specific Gravity	ASTM D792	0.918	g/cm ³
Melt Index (190°C/2.16 kg)	ASTM D1238	2.0	g/10 min
Peak Melting Temperature		118	°C
Vicat Softening Temperature		105	°C

Processing Guidelines

Film (1 mil / 25.4 micron) produced on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 400-420°F (204-216°C), a 60 mil (1.52 mm) die gap, at a rate of 9 lb/hr/in die circumference (1.61 kg/hr/cm).

- 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. Mechanical property values were converted from the producer's published English (US customary) units; minor rounding variance versus SI-native datasheets is expected.*