mLLDPE

mLLDPE Exceed m 1018

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, allow downgauging in bag applications. 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 • Blown Stretch Film • Bread Bags • Food Packaging • Form Fill And Seal Packaging • Freezer Film • General Packaging • Heavy Duty Bags • Industrial Packaging • Lamination Film • Multilayer Packaging Film • Overwrap Film • Packaging Films • Premium Trash Bags • Stand Up Pouches • Trash Bags • Trash Can Liners	• Available in multiple additive variants with tailored antiblock and slip levels to suit different converting requirements • 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	9.0	MPa
Tensile Strength at Break MD	ASTM D882	65	MPa
Tensile Strength at Break TD	ASTM D882	58	MPa
Elongation at Break MD	ASTM D882	500	%
Elongation at Break TD	ASTM D882	640	%
Secant Modulus MD - 1% Secant	ASTM D882	166	MPa
Secant Modulus TD - 1% Secant	ASTM D882	179	MPa
Dart Drop Impact	ASTM D1709A	550	g

Elmendorf Tear Strength MD	ASTM D1922	220	g
Elmendorf Tear Strength TD	ASTM D1922	370	g
Puncture Force		58	N
Puncture Energy		5.5	J
Gloss (45°)	ASTM D2457	43	
Haze	ASTM D1003	16	%

Physical Properties

Properties	Test Method	Typical Value	Unit
Density / Specific Gravity	ASTM D792	0.918	g/cm³
Melt Index (190°C/2.16 kg)	ASTM D1238	1.0	g/10 min
Peak Melting Temperature		118	°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 403°F (206°C), a 60 mil (1.52 mm) die gap, at a rate of 10 lb/hr/in die circumference (1.79 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.