mLLDPE

mLLDPE Exceed Flow m 0520

METALLOCENE LINEAR LOW DENSITY POLYETHYLENE (mLLDPE)

This general-purpose hexene-comonomer metallocene linear low density polyethylene resin is an ethylene 1-hexene copolymer offering an outstanding balance between processing and film properties, including tensile, impact, and puncture resistance. Easier processing and excellent properties allow it to replace high-pressure LDPE in many applications, with superior drawdown and enhanced toughness.

Typical Application	International Compliance
• Agricultural film • Blown film • Cast film • Cast stretch film • Collation shrink • Food packaging • Form fill and seal packaging • Heavy duty bags • Lamination film • Multilayer packaging film • Shrink film • Stand up pouches • Stretch film	• Potential food-contact application compliance (FDA, EU, HPFB) available on request; written Statement of Compliance supplied per production lot at order.

Film Properties

Properties	Test Method	Typical Value	Unit
Tensile Strength at Yield MD	ASTM D882	9.9	MPa
Tensile Strength at Yield TD	ASTM D882	11	MPa
Tensile Strength at Break MD	ASTM D882	60	MPa
Tensile Strength at Break TD	ASTM D882	60	MPa
Elongation at Break MD	ASTM D882	480	%
Elongation at Break TD	ASTM D882	710	%
Secant Modulus MD, 1% Secant	ASTM D882	210	MPa
Secant Modulus TD, 1% Secant	ASTM D882	240	MPa
Dart Drop Impact	ASTM D1709A	240	g
Elmendorf Tear Strength MD	ASTM D1922	90	g
Elmendorf Tear Strength TD	ASTM D1922	570	g
Puncture Force		54	N
Puncture Energy		3.8	J
Gloss (45°)	ASTM D2457	57	
Haze	ASTM D1003	7.8	%

Physical Properties

Properties	Test Method	Typical Value	Unit
Density / Specific Gravity	ASTM D792	0.920	g/cm³
Melt Index (190°C/2.16 kg)	ASTM D1238	0.50	g/10 min
Peak Melting Temperature		115	°C
Vicat Softening Temperature		107	°C

Processing Guidelines

Film (1 mil / 25.4 micron) made on a 2.5 inch (63.5 mm) blown film line with a 2.5:1 blow-up ratio, a melt temperature of 380-400°F (193-204°C), a 30 mil (0.76 mm) die gap, at a rate of 10 lbs/hr/in die circumference (1.79 kg/hr/cm).

1. Density (0.920 g/cm³) and melt index (0.50 g/10 min) match the distributor offer-sheet listing exactly.
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.