Marlex Polyethylene

SUPERIOR FLEXIBLE PACKAGING RESINS

Marlex® D170DK Polyethylene

METALLOCENE LINEAR LOW DENSITY POLYETHYLENE (mLLDPE)

This metallocene linear low density polyethylene is an ethylene-hexene copolymer tailored for blown film applications that require:

- Good tensile properties
- Exceptional toughness
- Surface printing
- Stiffness

Typical blown film applications include:

- Heavy duty packaging
- Industrial packaging
- Institutional packaging

Nominal Resin Properties	English	SI	Method
Melt Index, 190 °C/2.16 kg	---	0.9 g/10 min	ASTM D1238
Density	---	0.923 g/cm^3	ASTM D1505
Slip	None	None	---
Antiblock	5000	5000	---
Process Aid	Yes	Yes	---

Nominal Blown Film Properties at 1 mil[1]	English	SI	Method
Haze	10 %	10 %	ASTM D1003
Gloss, 60°	100	100	ASTM D2457
COF	0.8	0.8	ASTM D1894
Dart	---	270 g/mil	ASTM D1709
Elmendorf Tear MD	---	210 g/mil	ASTM D1922
Elmendorf Tear TD	---	600 g/mil	ASTM D1922
Tensile Strength at Yield MD	2300 psi	16 MPa	ASTM D882
Tensile Strength at Yield TD	1600 psi	11 MPa	ASTM D882
Tensile Strength at Break MD	8700 psi	60 MPa	ASTM D882
Tensile Strength at Break TD	6500 psi	45 MPa	ASTM D882
Tensile Elongation at Break MD	420 %	420 %	ASTM D882
Tensile Elongation at Break TD	580 %	580 %	ASTM D882
1 % Secant Modulus MD	32000 psi	220 MPa	ASTM D882
1 % Secant Modulus TD	35000 psi	241 MPa	ASTM D882
Seal Initiation Temperature[2]	228 °F	109 °C	ASTM F88

1. Produced on a LLDPE line at 2.5:1 BUR, 80 mil die gap, 8 in die, 250 lb/h, 400 °F melt temperature.
2. Temperature at which 0.3 lb/in heat seal strength is achieved. 0.5 s dwell, 30 psi pressure, 11.8 in/min separation rate.

Chevron Phillips CHEMICAL