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Marlex Polyethylene

SUPERIOR FLEXIBLE PACKAGING RESINS

Marlex® D139-P01 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:

- Superb clarity
- Excellent gloss
- Exceptional toughness
- Outstanding heat seal
- Non-PFAS process aid[3]

Typical blown film applications include:

- Seal layer in coextrusions
- Heavy duty packaging
- Clarity packaging
- Agricultural films

Nominal Resin Properties	English	SI	Method
Melt Index, 190 °C/2.16 kg	---	1.0 g/10 min	ASTM D1238
Density	---	0.918 g/cm^3	ASTM D1505
Slip	None	None	---
Antiblock	None	None	---
Process Aid	Yes	Yes	---

Nominal Blown Film Properties at 1 mil[1]	English	SI	Method
Haze	4 %	4 %	ASTM D1003
Gloss, 60°	130	130	ASTM D2457
COF	> 1	> 1	ASTM D1894
Dart	---	630 g/mil	ASTM D1709
Elmendorf Tear MD/TD	---	165/440 g/mil	ASTM D1922
Tensile Strength at Yield MD/TD	1850/1450 psi	13/10 MPa	ASTM D882
Tensile Strength at Break MD/TD	10800/8200 psi	74/57 MPa	ASTM D882
Tensile Elongation at Break MD/TD	500/600 %	500/600 %	ASTM D882
1 % Secant Modulus MD/TD	26000/30200 psi	179/208 MPa	ASTM D882
Seal Initiation Temperature[2]	216 °F	102 °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.
3. PFAS as defined by OECD (2021), Reconciling Terminology of the Universe of Per- and Polyfluoroalkyl Substances: Recommendations and Practical Guidance, OECD Series on Risk Management, No. 61, OECD Publishing, Paris. A non-PFAS process aid is not structurally identified as PFAS by OECD (2021).

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