



AVENTIR MLF-01

METALLOCENE LINEAR LOW DENSITY POLYETHYLENE

Technical Data Sheet | FIN-X Polymers

PRODUCT DESCRIPTION

This type of mLLDPE is a copolymer of ethylene and 1-hexene produced with Metallocene catalysts in a gas phase polymerization process.

GENERAL

Category	Details
Processing Methods	Blown Film Extrusion
Characteristics	Good Impact and Tensile Properties Good Processability Good Sealability
Applications	Heavy Duty Bags Lamination Films Stretch Hood

RESIN PROPERTIES

Property / condition	Test method	English value	SI value
Melt Flow Rate, MFR ₂ (2.16 kgf / 190°C)	ASTM D1238	1.0 g/10 min	1.0 g/10 min
Density (23°C)	ASTM D1505	0.918 g/cm ³	0.918 g/cm ³
Processing Aid	---	Yes	Yes
Antioxidant Package	---	Yes	Yes

BLOWN FILM PROPERTIES

Property / condition	Test method	English value	SI value
Evaluated Film Thickness	---	1.0 mils	25.4 µm
Dart Impact Strength (38.0 mm [1.5 in], 0.66 m [26.0 in], F50)	ASTM D1709A	490 g	490 g
Elmendorf Tear Strength - MD	ASTM D1922	259 g	259 g
Elmendorf Tear Strength - TD	ASTM D1922	486 g	486 g
Tensile Strength at Yield - MD (20.0 in/min [508 mm/min])	ASTM D882	1,410 psi	9.7 MPa
Tensile Strength at Yield - TD (20.0 in/min [508 mm/min])	ASTM D882	1,410 psi	9.7 MPa
Tensile Strength at Break - MD (20.0 in/min [508 mm/min])	ASTM D882	7,612 psi	52.5 MPa
Tensile Strength at Break - TD (20.0 in/min [508 mm/min])	ASTM D882	6,453 psi	44.5 MPa
Tensile Elongation at Break - MD (20.0 in/min [508 mm/min])	ASTM D882	540%	540%
Tensile Elongation at Break - TD (20.0 in/min [508 mm/min])	ASTM D882	640%	640%
Haze	ASTM D1003	17.5%	17.5%
Specular Gloss (45°)	ASTM D2457	40.0	40.0

PROCESSING CONDITIONS OF EVALUATED FILM

Property	English value	SI value
Blow-up Ratio, BUR	2.5 ---	2.5 ---

DATA NOTICE

The data presented here is true and accurate to the best of our knowledge. Likewise, the values are nominal and should not be taken as minimum or maximum specifications. No warranty, express or implied, is made regarding resin performance. The customer must validate these properties according to his own evaluations on his machine and in his laboratory.

REGULATORY NOTES

This resin complies with the following FDA regulation: 21 CFR 177.1520: Olefinic Polymers. This regulation describes polyolefin resins that can be used safely for food packaging and preservation at low temperatures and at ambient temperatures. This resin is not designed for use in medical applications and should not be used in such applications.

Values are typical and are not to be construed as specifications. Validate performance for the intended application before final material selection.