AVENTIR LDF-01

LOW DENSITY POLYETHYLENE

Technical Data Sheet | FIN-X Polymers

PRODUCT DESCRIPTION

This type of Heavy-Duty LDPE is a high molecular weight homopolymer of ethylene (HMW-LDPE). This reference does not have any slip or antiblock additives.

GENERAL

Category	Details
Processing Methods	Blown Film Extrusion
Characteristics	Good Mechanical Properties | Excellent Bubble Stability | Easy Processability and High Melt Strength
Applications	Greenhouse Films | Heavy Duty Bags | Industrial Shrink Film

RESIN PROPERTIES

Property / condition	Test method	English value	SI value
Melt Flow Rate, MFR2 (2.16 kgf / 190°C)	ASTM D1238	0.25 g/10 min	0.25 g/10 min
Density (23°C)	ASTM D1505	0.919 g/cm³	0.919 g/cm³
Antioxidant Package	---	Yes	Yes
Evaluated Film Thickness	---	2.0 mils	50.8 µm
Dart Impact Strength (23°C, 1.5 in [38.0 mm], 26.0 in [0.66 m], F50)	ASTM D1709A	250 g/F50	250 g/F50
Elmendorf Tear Strength - MD	ASTM D1922	170 g	170 g
Elmendorf Tear Strength - TD	ASTM D1922	220 g	220 g
Tensile Strength at Yield - MD (20.0 in/min [508 mm/min])	ASTM D882	1,500 psi	10.3 MPa
Tensile Strength at Yield - TD (20.0 in/min [508 mm/min])	ASTM D882	1,500 psi	10.3 MPa
Tensile Strength at Break - MD (20.0 in/min [508 mm/min])	ASTM D882	3,500 psi	24.1 MPa
Tensile Strength at Break - TD (20.0 in/min [508 mm/min])	ASTM D882	2,700 psi	18.6 MPa
Tensile Elongation at Break - MD (20.0 in/min [508 mm/min])	ASTM D882	250%	250%
Tensile Elongation at Break - TD (20.0 in/min [508 mm/min])	ASTM D882	750%	750%
Tensile Secant Modulus of Elasticity - MD (1% Elongation, 0.051 in/min [1.3 mm/min])	ASTM D882	22,000 psi	151.7 MPa
Tensile Secant Modulus of Elasticity - TD (1% Elongation, 0.051 in/min [1.3 mm/min])	ASTM D882	28,800 psi	198.6 MPa
Haze	ASTM D1003	7.5%	7.5%
Specular Gloss (45°)	ASTM D2457	62.0	62.0

PROCESSING CONDITIONS OF EVALUATED FILM

Property	English value	SI value
Die Gap	35 mils	0.9 mm
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.