



CNERGIZ POLYMERS | LLDPE 218-W4

Linear Low Density Polyethylene

TECHNICAL DATA SHEET

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PRODUCT DESCRIPTION

This type of LLDPE is a copolymer of ethylene and 1-butene produced with Ziegler-Natta catalysts in a gas phase polymerization process.

PROCESSING METHODS	CHARACTERISTICS	APPLICATIONS
Blown Film (Co)Extrusion Cast Film (Co)Extrusion	Toughness and Strength Sealing Properties	Cast Stretch Film Packaging Blown Films

RESIN PROPERTIES

PROPERTY	TEST METHOD	ENGLISH UNITS	INTERNATIONAL UNITS
Melt Flow Rate 2.16 kgf/190°C MFR ₂	ASTM D1238	2.0 g/10 min	2.0 g/10 min
Density 23°C	ASTM D1505	0.918 g/cm ³	0.918 g/cm ³
Slip	---	1,500 ppm	1,500 ppm
Antiblock	---	6,300 ppm	6,300 ppm
Antioxidant Package	---	Yes	Yes

FILM PROPERTIES *

FILM PROPERTIES *	TEST METHOD	DIR	ENGLISH UNITS	INTERNATIONAL UNITS
Evaluated Film Thickness	---		1.0 mils	25.4 µm
Dart Impact Strength	ASTM D1709A		100 g	100 g
■ 38.0 mm (1.5 in), 0.66 m (26.0 in), F50				
Elmendorf Tear Strength	ASTM D1922	MD	110 g	110 g
		TD	330 g	330 g
Tensile Strength at Yield	ASTM D882	MD	1,500 psi	10 MPa
20.0 in/min (508 mm/min)		TD	1,500 psi	10 MPa
Tensile Strength at Break	ASTM D882	MD	4,600 psi	32 MPa
20.0 in/min (508 mm/min)		TD	3,600 psi	25 MPa
Tensile Elongation at Break	ASTM D882	MD	660 %	660 %
20.0 in/min (508 mm/min)		TD	700 %	700 %
Tensile Secant Modulus of Elasticity	ASTM D882	MD	24,700 psi	170 MPa
1% Elong., 0.051 in/min (1.3 mm/min)		TD	27,600 psi	190 MPa
Haze	ASTM D1003		14.0 %	14.0 %
Specular Gloss 45°	ASTM D2457		43.0	43.0

PROCESSING CONDITIONS OF THE EVALUATED FILM

PROCESSING CONDITIONS OF EVALUATED FILM	ENGLISH UNITS	INTERNATIONAL UNITS
Die Diameter	4.0 in	102 mm
Die Gap	100 mils	2.5 mm
Blow-up Ratio, BUR	2.5	2.5

* The data presented here is true and accurate to the best of our knowledge. 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 COMPLIANCE

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.