



Technical Data Sheet

DOW™ LDPE 310LG Low Density Polyethylene Resin

Description

DOW™ LDPE 310LG is a fractional melt index low density polyethylene resin with a low gel level and very good processability. The resin offers an excellent draw down ability when used either pure or in blends. DOW™ LDPE 310LG has been specially designed for high demanding applications requiring low gel content.

Main Characteristics

- Low gel content
- Excellent processability and draw down
- Good physical properties
- To be used pure or in blends with LLDPE

Complies with

- EU, No 10/2011
- U.S. FDA 21 CFR 177.1520(c)2.2
- U.S. FDA-DMF

Consult the regulations for complete details.

Additives

- Antiblock: No
- Processing Aid: No
- Slip: No

Typical Properties¹

Typical properties: These are not to be construed as specifications. Users should confirm results by their own tests.

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Density	0.923	g/cm ³	0.923	g/cm ³	ASTM D792
Base Density ²	0.923	g/cm ³	0.923	g/cm ³	Internal Method
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.75	g/10 min	0.75	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Coefficient of Friction	0.50 to 0.70		0.50 to 0.70		ASTM D1894

1. Typical properties: these are not to be construed as specifications. Users should confirm results by their own tests.
2. Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock



Typical Properties (Cont.)

Films	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Film Thickness — Tested	2.0	mil	50	μm	
Film Puncture Energy (2.0 mil (50 μm))	15.9	in*lb	1.80	J	Internal Method
Film Puncture Force (2.0 mil (50 μm))	11.2	lbf	50.0	N	Internal Method
Secant Modulus					ASTM D882
2% Secant, MD: 2.0 mil (50 μm), Blown Film	25400	psi	175	MPa	
2% Secant, TD: 2.0 mil (50 μm), Blown Film	26800	psi	185	MPa	
Tensile Strength					ASTM D882
MD: Yield, 2.0 mil (50 μm), Blown Film	1600	psi	11.0	MPa	
TD: Yield, 2.0 mil (50 μm), Blown Film	1600	psi	11.0	MPa	
MD: Break, 2.0 mil (50 μm), Blown Film	3630	psi	25.0	MPa	
TD: Break, 2.0 mil (50 μm), Blown Film	3340	psi	23.0	MPa	
Tensile Elongation					ASTM D882
MD: Break, 2.0 mil (50 μm), Blown Film	390	%	390	%	
TD: Break, 2.0 mil (50 μm), Blown Film	570	%	570	%	
Dart Drop Impact, 2.0 mil (50 μm), Blown Film	170	g	170	g	ASTM D1709A
Elmendorf Tear Strength ³					ASTM D1922
MD: 2.0 mil (50 μm), Blown Film	350	g	350	g	
TD: 2.0 mil (50 μm), Blown Film	260	g	260	g	
Optical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Gloss (45°C)	58		58		ASTM D2457
Haze	9.20	%	9.20	%	ASTM D1003
Extrusion Notes					
Fabrication Conditions For Blown Film:					
- Screw Type: Universal - Output: 25 kg/h - Die Diameter: 150 mm - Blow-Up Ratio: 2.5 - Screw Speed: 77 rpm					
Notes:					
ASTM: American Society for Testing and Materials					

3. Method B

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