



DOW LDPE 310E

Low Density Polyethylene Resin

DOW LDPE 310E is a fractional melt index low density polyethylene resin. DOW LDPE 310E has been specially designed for superior processability on blown film lines leading to significant output improvements. The resin offers additionally excellent draw down. It can be used pure or in blends with LLDPE resins.

Applications:

lamination film, shrink film, and stretch film

Main Characteristics

- Excellent processability and draw down
- Good physical properties in blends with LLDPE
- Can be readily extruded using conventional blown film techniques at melt temperatures between 160 and 195 °C
- DOW LDPE 310E should comply with:
U.S. FDA 21 CFR 177.1520 (c)2.2
Europe EU-Directive 2002/72/EC
Consult the regulations for complete details.

Slip Additive: 0 ppm
Antiblock Additive: 0 ppm

Properties ⁽¹⁾		S.I.	
Typical Physical	Test Method		
Melt Index, (I ₂) at 190°C/2.16 kg, g/10 min	ASTM D 1238		
Density, g/cm ³	ASTM D 792	0.75	
Film, (50 µm)			
Puncture Resistance, J/cm ³	Dow Method		
Energy, in· J	4		
Force N	1.8		
Dart Impact, g Method A	ASTM D 1709		
	170		
Elmendorf Tear (Method B), g	MD	ASTM D 1922	350
	CD		260
Tensile Yield, MPa	MD	ASTM D 882	11
	CD		11
Ultimate Tensile, MPa	MD	ASTM D 882	25
	CD		23
Ultimate Elongation, %	MD	ASTM D 882	390
	CD		570
Tensile Modulus, 2% Secant, MPa	MD	ASTM D 882	175
	CD		185
Gloss, 45°	ASTM D 2457		
	58		
Haze, %	ASTM D 1003		
	9.2		
COF	ASTM D-1894		
	0.5-0.7		

Fabrication Conditions For Blown Film:

- Screw Type: Universal
- Output: 25 kg/hr
- Die Diameter: 150 mm.
- Blow-Up Ratio: 2.5
- Screw Speed: 77 rpm

(1) These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

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Additional Information

North America U.S. & Canada:	1-800-441-4369 1-989-832-1426	Europe/Middle East	+800-3694-6367 +32-3-450-2240
Mexico:	+1-800-441-4369		
Latin America Argentina:	+54-11-4319-0100	South Africa	+800-99-5078
Brazil:	+55-11-5188-9000		
Colombia:	+57-1-219-6000	Asia Pacific	+800-7776-7776
Mexico:	+52-55-5201-4700		+60-3-7958-3392

www.dowplastics.com

Published June 2008
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