

# DOW™ LDPE 312E

Low Density Polyethylene Resin

The Dow Chemical Company

## Message:

DOW LDPE 312E is a low melt index, low density polyethylene resin containing slip agent and opening agent. DOW LDPE 312E has excellent processing performance and is specially developed for blown film processing production lines. The application of this product can significantly improve production capacity.

In addition, the resin also has excellent drafting properties. The resin can be used alone or blended with LLDPE resin.

Application fields:

Health and hygiene films, food packaging, cold snack shrink films, agricultural films, shopping bags, garbage bags, composite films

Main characteristics:

Excellent processability and drafting performance

The blend with LLDPE has good physical properties

It can be easily extruded using conventional blown film technology, and the melt temperature range is 160 to 195°C

DOW LDPE 312E should meet the requirements of the following regulations:

U.S. Food and Drug Administration Regulation 21 CFR 177.1520 (c) 2.2

EU, No 10/2011

Canadian HPFB No Objection

U.S. FDA-DMF

please check the regulations for complete details.

slip agent content: 385 ppm

opening agent content: 900 ppm

General Information			
Additive	Anti-caking agent (900 ppm)		
	Sliding agent (385 ppm)		
Agency Ratings	DMF not rated		
	FDA 21 CFR 177.1520(c) 2.2		
	HPFB (Canada) No Objection		
	Europe No 10/2011		
Forms	Particle		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.923	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.75	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Coefficient of Friction	0.15		ASTM D1894
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	50	µm	
Film Puncture Energy (50 µm)	1.80	J	Internal method
Film Puncture Force (50 µm)	50.0	N	Internal method
Film Puncture Resistance (50 µm)	4.00	J/cm <sup>3</sup>	Internal method
secant modulus			ASTM D882
2% secant, MD: 50 µm, blown film	175	MPa	ASTM D882

2% secant, TD: 50 µm, blown film	185	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield, 50 µm, blown film	11.0	MPa	ASTM D882
TD: Yield, 50 µm, blown film	11.0	MPa	ASTM D882
MD: Broken, 50 µm, blown film	25.0	MPa	ASTM D882
TD: Broken, 50 µm, blown film	23.0	MPa	ASTM D882
Tensile Elongation			ASTM D882
MD: Broken, 50 µm, blown film	390	%	ASTM D882
TD: Broken, 50 µm, blown film	570	%	ASTM D882
Dart Drop Impact (50 µm, Blown Film)	170	g	ASTM D1709A
Elmendorf Tear Strength			ASTM D1922
MD: 50 µm, blown film	350	g	ASTM D1922
TD: 50 µm, blown film	260	g	ASTM D1922
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 50.0 µm, Blown Film)	58		ASTM D2457
Haze (50.0 µm, Blown Film)	9.2	%	ASTM D1003
Extrusion	Nominal Value	Unit	
Melt Temperature	160 - 195	°C	
Extrusion instructions			

吹塑薄膜的制造条件:  
 螺杆类型:通用  
 输出:25 kg/h  
 模具直径:150 mm.  
 放大比:2.5  
 螺杆速度:77 rpm

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