DOW™ LDPE 4012

Low Density Polyethylene Resin

The Dow Chemical Company

Message:

A high melt index resin for thin coating applications

Complies with U.S. FDA 21 CFR 177.1520 (c) 2.2.

Complies with U.S. FDA-DMF

Complies with Canadian HPFB No Objection (With Limitations)

Complies with EU, No 10/2011

Consult the regulations for complete details.

Polyethylene 4012 is used for a variety of applications such as condiment packaging, dry foods packaging, snack foods packaging, moist foods packaging, sugar pouches, lidding stock and medical packaging. DOW LDPE extrusion coating resins provide optimal neck-in and draw-down performance with minimal taste/odor contribution.

General Information			
Agency Ratings	DMF not rated		
	FDA 21 CFR 177.1520(c) 2.2		
	HPFB (Canada) No Objection 2		
	Europe No 10/2011		
Forms	Particle		
Processing Method	Extrusion coating		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.918	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	12	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Coefficient of Friction (vs. Itself - Dynamic)	0.60		ASTM D1894
Films	Nominal Value	Unit	Test Method
Seal Initiation Temperature ¹ (25 µm, Extrusion Coating)	105	°C	
Water Vapor Transmission Rate ² (25 μm, Extrusion Coating)	0.71	g·mm/m²/atm/24 hr	ASTM F1249
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	88.9	°C	ASTM D1525
Melting Temperature (DSC)	107	°C	Internal method
Extrusion	Nominal Value	Unit	Test Method
Melt Temperature	316 - 327	°C	
Neck-in (329°C, 25.4 μm)	48.3	mm	Internal method
Maximum production line speed	8.2	m/sec	Internal method
Minimum coating thickness	7.6	μm	Internal method
Minimum coating weight	6.5	g/m²	Internal method
Extrusion instructions			

挤出涂层薄膜的制造条件: 螺杆尺寸:3.5 英寸 (89 mm);30:1 L/D 螺杆类型:带 Maddock Mixer 的单跨型 模具间隙:20 密尔 (0.508 mm) 熔体温度:625°F (329°C) 输出:250 磅/小时 螺杆速度:90 rpm 厚度:1.0 密尔 (25μm)

NOTE	
	Apply the coating to 50 pounds of
	kraft paperAchieve a
	temperature of 1 psig (4.4
	N/25.4mm) heat seal strength.
	-Heat seal strength, Topwave HT
	tester 0.5 S holding pressure, 40
	psi pressure, pulling speed 150
1.	mm/s.
	Apply the coating to 50 pounds of
2.	kraft paper.

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