

AFFINITY™ PL 1881G

Polyolefin Plastomer
The Dow Chemical Company

Message:

AFFINITY* PL 1881G Polyolefin Plastomer (POP) is produced via INSITE* Technology. It is designed for a variety of demanding packaging applications, including high-speed form-fill-seal products.

Excellent ultimate hot tack strength

Low temperature sealability

Ability to seal through contamination

Outstanding optics

Complies with:

U.S. FDA FCN 424

Canadian HPFB No Objection (with limitations)

EU, No 10/2011

Consult the regulations for complete details.

General Information			
Additive	Anti-caking agent (2500 ppm)		
	Sliding agent (750 ppm)		
Agency Ratings	FDA FCN 424		
	HPFB (Canada) No Objection		
	Europe No 10/2011		
Forms	Particle		
Processing Method	Blow film		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.904	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Coefficient of Friction (vs. Itself - Dynamic)	0.15		ASTM D1894
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	51	µm	
Film Puncture Energy (51 µm)	8.09	J	Internal method
Film Puncture Force (51 µm)	82.3	N	Internal method
Film Puncture Resistance (51 µm)	21.9	J/cm ³	Internal method
secant modulus			ASTM D882
2% secant, MD: 51 µm	97.4	MPa	ASTM D882
2% secant, TD: 51 µm	96.9	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield, 51 µm	8.07	MPa	ASTM D882
TD: Yield, 51 µm	7.17	MPa	ASTM D882
MD: Fracture, 51 µm	45.4	MPa	ASTM D882

TD: Fracture, 51 μm	42.5	MPa	ASTM D882
Tensile Elongation			ASTM D882
MD: Fracture, 51 μm	590	%	ASTM D882
TD: Fracture, 51 μm	630	%	ASTM D882
Dart Drop Impact (51 μm)	> 830	g	ASTM D1709B
Elmendorf Tear Strength ¹			ASTM D1922
MD : 51 μm	560	g	ASTM D1922
TD : 51 μm	730	g	ASTM D1922
Seal Initiation Temperature ² (51 μm)	85.0	°C	Internal method
Blocking force	70	g	ASTM D3354-89
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	86.0	°C	ASTM D1525
Melting Temperature (DSC)	100	°C	Internal method
Optical	Nominal Value	Unit	Test Method
Gloss (20°, 50.8 μm)	112		ASTM D2457
Clarity (50.8 μm)	83.0		ASTM D1746
Haze (50.8 μm)	3.2	%	ASTM D1003
Extrusion	Nominal Value	Unit	
Melt Temperature	221	°C	
Extrusion instructions			

吹塑薄膜的制造条件:
 螺杆尺寸:2.5 英寸 (63.5 mm);24:1 L/D
 螺杆类型:DSB II
 模具间隙:70 密尔 (1.8 mm)
 熔体温度:430°F (221°C)
 输出:模具周长的 6 磅/小时/英寸
 模具直径:6 英寸
 放大比:2.5:1
 螺杆速度:40 rpm

NOTE	
1.	Modified rectangular test piece.
2.	Achieve a temperature of 2 psig (8.8 N/25.4mm) heat seal strength. Heat seal strength, Topwave HT tester 0.5 S holding pressure, 40 psi pressure, pulling speed 10 inches/min (250 mm/s).

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