

AFFINITY™ PF 1140G

Polyolefin Plastomer
The Dow Chemical Company

Message:

High performance blown film resin for flexible packaging
Excellent abuse resistance
Low temperature seal initiation
Excellent optics
Outstanding high oxygen transmission rates
Complies with:
U.S. FDA FCN 424
Canadian HPFP No Objections
EU, No 10/2011
U.S. FDA-DMF
Consult the regulations for complete details.
AFFINITY* PF 1140G Polyolefin Plastomer (POP) is produced via INSITE* Technology. It is an ethylene alpha-olefin resin designed to be used in a variety of demanding applications including form-fill-seal packaging and fresh produce bags. This resin has excellent compatibility with other polyolefins, allowing efficient blending and coextrusion.

General Information			
Agency Ratings	DMF not rated		
	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	0.897	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.6	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	51	µm	
Film Puncture Energy (51 µm)	8.18	J	Internal method
Film Puncture Force (51 µm)	83.6	N	Internal method
Film Puncture Resistance (51 µm)	20.3	J/cm ³	Internal method
secant modulus			ASTM D882
2% secant, MD: 51 µm	72.8	MPa	ASTM D882
2% secant, TD: 51 µm	73.2	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield, 51 µm	5.79	MPa	ASTM D882
TD: Yield, 51 µm	6.34	MPa	ASTM D882
MD: Fracture, 51 µm	50.3	MPa	ASTM D882
TD: Fracture, 51 µm	39.5	MPa	ASTM D882

Tensile Elongation			ASTM D882
MD: Fracture, 51 μm	690	%	ASTM D882
TD: Fracture, 51 μm	700	%	ASTM D882
Dart Drop Impact (51 μm)	> 850	g	ASTM D1709B
Elmendorf Tear Strength ¹			ASTM D1922
MD : 51 μm	470	g	ASTM D1922
TD : 51 μm	620	g	ASTM D1922
Seal Initiation Temperature ² (51 μm)	81.1	°C	Internal method
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	76.7	°C	ASTM D1525
Melting Temperature (DSC)	96.1	°C	Internal method
Optical	Nominal Value	Unit	Test Method
Gloss (20°, 50.8 μm)	134		ASTM D2457
Clarity (50.8 μm)	70.0		ASTM D1746
Haze (50.8 μm)	1.3	%	ASTM D1003
Extrusion	Nominal Value	Unit	
Melt Temperature	209	°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:单跨双混合
 模具间隙:70 密尔 (1.8 mm)
 熔体温度:408°F (209°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:50 rpm
 冷冻线高度:25 英寸 (635 mm)

NOTE	
1.	Modified rectangular test piece.
	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).
2.	

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