AFFINITY™ PF 1146G

Polyolefin Plastomer

The Dow Chemical Company

Message:

AFFINITY* PF 1146 Polyolefin Plastomer (POP) is produced via INSITE* Technology. It is designed for high speed packaging applications requiring low seal initiation temperature and good machinability (low consistent coefficient of friction and low block force). This resin is designed to give a COF of < 0.2 for an ~1.0 mil sealant layer in a coextruded film, and to run fast and trouble-free on most extrusion equipment, including blown film dies equipped with narrow die gaps.

For use as a sealant layer in multilayer films

For fresh-cut produce, dry foods and other high speed VFFS (Vertical Form-Fill-Seal) applications

- Complies with:
- U.S. FDA FCN 424

EU, No 10/2011

Consult the regulations for complete details.

General Information			
Additive	Processing aid		
	Anti-caking agent (6000 ppm)		
	Sliding agent (3500 ppm)		
Agency Ratings	FDA FCN 424		
	Europe No 10/2011		
Forms	Particle		
Processing Method	Blow film		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.899	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16			
kg)	1.0	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	51	μm	
Film Puncture Energy (51 µm)	3.56	J	Internal method
Film Puncture Force (51 µm)	48.9	Ν	Internal method
Film Puncture Resistance (51 µm)	9.60	J/cm³	Internal method
secant modulus			ASTM D882
2% secant, MD: 51 µm	51.2	MPa	ASTM D882
2% secant, TD: 51 µm	55.0	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield, 51 µm	6.43	MPa	ASTM D882
TD: Yield, 51 µm	5.98	MPa	ASTM D882
MD: Fracture, 51 µm	37.3	MPa	ASTM D882
TD: Fracture, 51 µm	42.1	МРа	ASTM D882
Tensile Elongation			ASTM D882

MD: Fracture, 51 µm	550	%	ASTM D882
TD: Fracture, 51 µm	600	%	ASTM D882
Elmendorf Tear Strength			ASTM D1922
MD : 51 μm	380	g	ASTM D1922
TD : 51 µm	460	g	ASTM D1922
Seal Initiation Temperature 1 (51 μ m)	75.0	°C	Internal method
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	78.0	°C	ASTM D1525
Melting Temperature (DSC)	95.0	°C	Internal method
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 50.8 μm)	77		ASTM D2457
Clarity ² (50.8 µm)	90.0		ASTM D1746
Haze (50.8 µm)	5.5	%	ASTM D1003
Extrusion	Nominal Value	Unit	
Melt Temperature	221 - 232	°C	
Extrusion instructions			
吹塑薄膜的制造条件: 螺杆类型:改良 LDPE 或中等工作阻隔 模具间隙:70 密尔 (1.8 mm) 熔体温度:430-450°F (221-232°C) 放大比:2.5:1			
NOTE			
1.	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 on Instron tensiometer 10 inches/minute (250 mm/s).		
2.	The ASTM method is under development. BYK-Gardner-Hazeguard has been utilized.		

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