AFFINITY™ PL 1888G

Polyolefin Plastomer

The Dow Chemical Company

Message:

AFFINITY* PL 1888G Polyolefin Plastomer for Packaging films is used 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 run fast and trouble-free on most extrusion equipment, including blown film dies equipped with narrow die gaps.
For use in monolayer films and as the sealant layer in multilayer films
For fresh-cut produce, meat, cheese, and other high speed packaging applications requiring good machinability
Fast processing on narrow die gaps
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 (3000 ppm) Sliding agent (1500 ppm)
Agency Ratings	FDA FCN 424 Europe No 10/2011
Forms	Particle
Processing Method	Blow film cast film

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.904	g/cm³	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)	< 0.20		ASTM D1894
Films	**Nominal Value**	**Unit**	**Test Method**
Film Thickness - Tested	51	µm	
Film Puncture Energy (51 µm)	5.99	J	Internal method
Film Puncture Force (51 µm)	67.2	N	Internal method
Film Puncture Resistance (51 µm)	15.6	J/cm³	Internal method
secant modulus			ASTM D882
2% secant, MD: 51 µm	70.2	MPa	ASTM D882
2% secant, TD: 51 µm	68.7	MPa	ASTM D882
Tensile Strength			ASTM D882
MD: Yield, 51 µm	5.92	MPa	ASTM D882

TD: Yield, 51 µm	5.98	MPa	ASTM D882
MD: Fracture, 51 µm	49.3	MPa	ASTM D882
TD: Fracture, 51 µm	39.8	MPa	ASTM D882
Tensile Elongation			ASTM D882
MD: Fracture, 51 µm	600	%	ASTM D882
TD: Fracture, 51 µm	570	%	ASTM D882
Dart Drop Impact (51 µm)	> 830	g	ASTM D1709B
Elmendorf Tear Strength			ASTM D1922
MD : 51 µm	430	g	ASTM D1922
TD : 51 µm	720	g	ASTM D1922
Seal Initiation Temperature [1] (51 µm)	80.0	°C	Internal method
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	85.0	°C	ASTM D1525
Melting Temperature (DSC)	98.0	°C	Internal method
Optical	**Nominal Value**	**Unit**	**Test Method**
Gloss (45°, 50.8 µm)	81		ASTM D2457
Clarity [2] (50.8 µm)	95.0		ASTM D1746
Haze (50.8 µm)	3.4	%	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 the Instron 10 inches/minute (250 mm/s).		
2.	The ASTM method is under development. BYK-Gardner-Hazeguard Plus has been utilized.		

Recommended distributors for this material

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