



AFFINITY™ PF 1162G

The Dow Chemical Company - Polyolefin Plastomer

Monday, November 4, 2019

General Information

Product Description

- For food packaging
- Excellent seal flexibility and strength properties

Complies with:

- U.S. FDA FCN 424

Consult the regulations for complete details.

General

Material Status	• Commercial: Active
Availability	• Latin America • North America
Additive	• Antiblock: 5000 ppm • Processing Aid: No • Slip: 2500 ppm
Agency Ratings	• FDA FCN 424
Forms	• Pellets
Processing Method	• Blown Film

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.902		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	1.0	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	2	mil	
Tensile Strength - MD (Yield, 2.0 mil)	861	psi	ASTM D882
Tensile Strength - TD (Yield, 2.0 mil)	838	psi	ASTM D882
Tensile Strength - MD (Break, 2.0 mil)	6410	psi	ASTM D882
Tensile Strength - TD (Break, 2.0 mil)	6040	psi	ASTM D882
Tensile Elongation - MD (Break, 2.0 mil)	610	%	ASTM D882
Tensile Elongation - TD (Break, 2.0 mil)	650	%	ASTM D882
Dart Drop Impact (2.0 mil)	> 850	g	ASTM D1709B
Elmendorf Tear Strength - MD (2.0 mil)	400	g	ASTM D1922
Elmendorf Tear Strength - TD (2.0 mil)	510	g	ASTM D1922
Seal Initiation Temperature ² (2.0 mil)	176	°F	Internal Method
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	169	°F	ASTM D1525
Melting Temperature (DSC)	203	°F	Internal Method
Optical	Nominal Value	Unit	Test Method
Gloss (45°, 2.00 mil)	81		ASTM D2457
Haze (2.00 mil)	5.00	%	ASTM D1003

Processing Information

Extrusion	Nominal Value	Unit
Melt Temperature	350 to 450	°F

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Extrusion Notes

Fabrication Conditions For Blown Film:

- Screw Type: Single Flight Double Mix
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 350-450°F (177-232°C)
- Output: 6.5 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1

Notes

¹ Typical properties: these are not to be construed as specifications.

² Temperature at which 2 lb/in. (8.8 N/25.4 mm) heat seal strength is achieved.

Heat Seal Strengths, Topwave HT Tester 0.5 S dwell, 40 psi bar pressure, pull speed (150 mm/sec).