



AFFINITY™ PT 1450G1

The Dow Chemical Company - Polyolefin Plastomer

Monday, November 4, 2019

General Information

Product Description

- Monolayer and coextrusion coating for packaging applications
- Recommended for use with Oriented Polypropylene (OPP as a tie layer or sealant)
- Coextruded with acid copolymer as a cost effective foil or PET sealant
- Complies with U.S. FDA
- Consult the regulations for complete details. (See NOTES)

AFFINITY™ PT 1450G1 Polyolefin Plastomer is produced via INSITE™ Technology. It is an ethylene alpha-olefin resin for monolayer and coextrusion coating that offers excellent low temperature seal initiation, ultimate seal strength, adhesion to (OPP) and good taste and odor performance.

Note: It is the responsibility of the manufacturer of the food contact article to ensure the article is suitable for its intended use. Manufacturers should be aware that foods with a high oil content may compromise the integrity of the packaging.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Latin America	• North America
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• FDA Unspecified Rating		
Forms	• Pellets		
Processing Method	• Extrusion Coating	• Film Extrusion	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.904		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	7.5	g/10 min	ASTM D1238
Films	Nominal Value	Unit	Test Method
Seal Initiation Temperature ² (1.0 mil)	181	°F	Internal Method
Adhesion to OPP ³			Internal Method
600°F	0.73	pli	
550°F	1.0	pli	
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	171	°F	ASTM D1525
Melting Temperature (DSC)	208	°F	Internal Method

Processing Information

Extrusion	Nominal Value	Unit	Test Method
Melt Temperature	550 to 600	°F	
Minimum Coating Thickness	< 0.30	mil	Internal Method
Minimum Coating Weight	< 4.5	lb/ream	Internal Method
Neck-in (600°F, 1.0 mil)	5.3	in	Internal Method

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Extrusion Notes

Fabrication Conditions For Extrusion Coating Film:

- Extruder: Black Clawson
- Screw Size: 3.5 in. (90 mm); 30:1 L/D
- Die Gap: 20 mil (0.508 mm)
- Chill Roll Temperature: 57°F (14°C)
- Melt Temperature: 600°F (315°C)
- Output: 250 lb/hr
- Air Gap: 6 in. (150 mm)

Notes

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

² 1.0 mil (25µm) coating.

Temperature at which 1 lb/in. (4.4 N/25.4 mm) heat seal strength is achieved.

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

³ 1.0 mil (25µm) coating onto 50 lb Kraft paper.