# AFFINITY™ PT 1451G1

## Polyolefin Plastomer

### The Dow Chemical Company

#### Message:

AFFINITY<sup>™</sup> PT 1451G1 Polyolefin Plastomer (POP) produced using INSITE<sup>™</sup> Technology from Dow, is specifically designed for extrusion coating and other cast extrusion processing.

AFFINITY PT 1451G1 Polyolefin Plastomer is a tough and high performance and low temperature sealant. Its ease of processability in combination with other common extrusion coating polyolefins, i.e. LDPE or PRIMACOR<sup>™</sup> polymers, provides optimum sensory performance. The high clarity and adhesion to PP makes coatings of AFFINITY PT 1451G1 Polyolefin Plastomer fit for use in combination with OPP or primed PET high clarity films. Coextrusions of AFFINITY PT 1451G1 Polyolefin Plastomer for adhesion to foil offer cost effective high performance sealant structures with exceptional potential for source reduction.

Note:

AFFINITY PT 1451G1 Polyolefin Plastomer should comply with FDA regulation 21 CFR 177.1520 (c) 3.2c and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. Please contact your nearest Dow office regarding food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

Flexible packaging

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General Information			
Agency Ratings	EU No 10/2011		
	FDA 21 CFR 177.1520(c)	3.2c	
Forms	Pellets		
Processing Method	Extrusion Coating		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.902	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.1	6		
kg)	7.5	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress <sup>1</sup>			ISO 527-2
Yield	5.00	MPa	
Break	20.0	MPa	
Tensile Strain <sup>2</sup> (Break)	1000	%	ISO 527-2
Films	Nominal Value	Unit	Test Method
Seal Initiation Temperature <sup>3</sup>	83.0	°C	Internal Method
Water Vapor Transmission <sup>4</sup>	390	g/m²/24 hr	Internal Method
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	79.0	°C	ASTM D1525
Melting Temperature	98.0	°C	DSC
Extrusion	Nominal Value	Unit	Test Method
Melt Temperature	270 to 320	°C	
Minimum Coating Weight <sup>5</sup>	< 8.0	g/m²	Internal Method
Neck-in <sup>6</sup> (290°C)	130.0	mm	Internal Method
NOTE			

1.	At 290°C set temperature.
2.	At 290°C set temperature.
	25 g/m <sup>2</sup> coatings at 290°C set
3.	temperature
	23°C, 95% R.H.; Divide by coating
	weight in g/m2 to obtain actual
4.	WVTR.
5.	At 290°C set temperature.
6.	At 290°C set temperature.

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