

Dow AFFINITY™ PL 1881G Polyolefin Plastomer (POP)

Category : Polymer , Film , Thermoplastic , Polyolefin

Material Notes:

AFFINITY™ PL 1881G Polyolefin Plastomer (POP) is produced via INSITE™ Technologies. It is designed for use in a variety of packaging applications, including high-speed, form-fill-seal products. Information provided by Dow

Order this product through the following link:

http://www.lookpolymers.com/polymer_Dow-AFFINITY-PL-1881G-Polyolefin-Plastomer-POP.php

Physical Properties	Metric	English	Comments
Density	0.9035 g/cc	0.03264 lb/in ³	ASTM D792
Thickness	50.8 microns	2.00 mil	
Melt Flow	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Antiblock Level	2500 ppm	2500 ppm	
Slip Level	750 ppm	750 ppm	

Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Yield, MD	8.07 MPa	1170 psi	ASTM D882
Film Tensile Strength at Yield, TD	7.17 MPa	1040 psi	ASTM D882
Film Elongation at Break, MD	585 %	585 %	ASTM D882
Film Elongation at Break, TD	630 %	630 %	ASTM D882
Secant Modulus, MD	0.0970 GPa	14.1 ksi	2% Secant; ASTM D882
Secant Modulus, TD	0.0970 GPa	14.1 ksi	2% Secant; ASTM D882
Impact	18.5	18.5	[lb_f]; Puncture Resistance Force; Dow Method
	265	265	[ft-lbf/in³]; Puncture Resistance; Dow Method
Puncture Energy	8.09 J	5.97 ft-lb	Dow Method
Coefficient of Friction, Dynamic	0.15	0.15	film/film; ASTM D1894
Elmendorf Tear Strength MD	560 g	560 g	Modified rectangular test specimen; ASTM D1922
Elmendorf Tear Strength TD	730 g	730 g	Modified rectangular test specimen; ASTM D1922
Elmendorf Tear Strength, MD	11.0 g/micron	280 g/mil	ASTM D1922

Elmendorf Tear Strength, TD Mechanical Properties	14.4 g/micron Metric	365 g/mil English	ASTM D1922 Comments
Dart Drop Test	>= 830 g	>= 1.83 lb	Method B; ASTM D1709
Film Tensile Strength at Break, MD	45.4 MPa	6580 psi	ASTM D882
Film Tensile Strength at Break, TD	42.5 MPa	6170 psi	ASTM D882
Heat Seal Strength Initiation Temperature	85.0 °C	185 °F	2 lb/in heat seal strength; 0.5 sec dwell, 40 psi bar pressure, pull speed 10 (in./min.); Dow Method

Thermal Properties	Metric	English	Comments
Melting Point	100 °C	212 °F	Dow Method (DSC)
Vicat Softening Point	86.0 °C	187 °F	ASTM D1525

Optical Properties	Metric	English	Comments
Haze	3.2 %	3.2 %	ASTM D1003
Gloss	112 %	112 %	20°; ASTM D2457
Transmission, Visible	83 %	83 %	Clarity; ASTM D1746

Descriptive Properties	Value	Comments
Block Force g	70	ASTM D3354-89

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