AFFINITY™ Polyolefin Plastomers and Polyolefin Elastomers

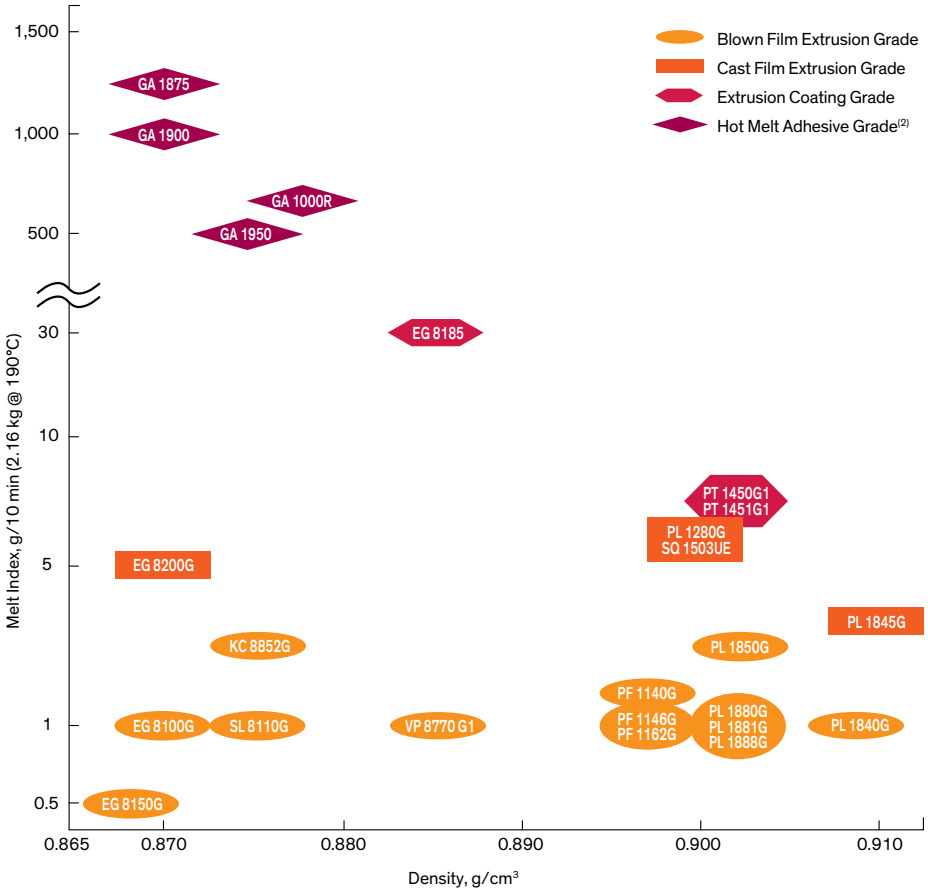
Product Selection Guide

When you need a resin to help your applications flow faster, flex longer, stick better, breathe better, and more, you need AFFINITY™ Polyolefin Plastomers (POPs) or Polyolefin Elastomers (POEs). The AFFINITY™ product line combines high flow with low crystallinity, offering you opportunities to achieve improved performance, processing, and value in flexible packaging, hot melt adhesive (HMA), and other applications.

Affinity™ POLYOLEFIN PLASTOMERS

Affinity™ GA POLYOLEFIN ELASTOMER

Figure 1: AFFINITY™ Polyolefin Plastomer and Polyolefin Elastomer Products[1]



All grades are commercialized AFFINITY™ POP or POE products.
[1] Typical properties; not to be construed as specifications. Users should confirm results by their own tests.
[2] AFFINITY™ GA POE melt index values are approximate; points are outside normal testing range.

Table 1: Typical Properties of AFFINITY™ Polyolefin Plastomers and Polyolefin Elastomers (Density: 0.868-0.897 g/cm³)[1]

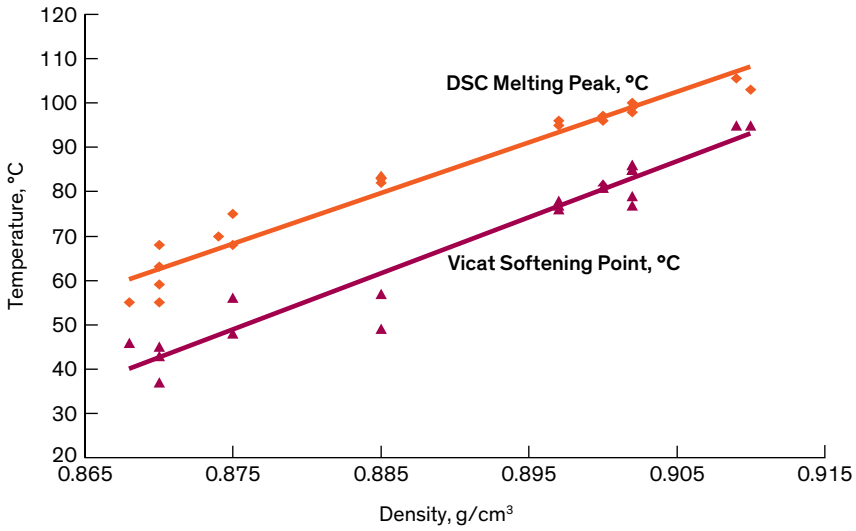
AFFINITY™ POP and POE Grades											
Property/ Product Information	**EG 8150G[2] POP**	**EG 8100G POP**	**EG 8200G POP**	**GA 1875 POE**	**GA 1900 POE**	**GA 1950 POE**	**GA 1000R POE**	**SL 8110G POP**	**KC 8852G POP**	**VP 8770G1 POP**	**PF 1140G POP**
Processing Type	Blown Film Extrusion	Blown Film Extrusion	Cast Film Extrusion	—	—	—	—	Blown Film Extrusion	Blown Film Extrusion	Blown Film Extrusion	Blown Film Extrusion
Typical Applications	General	General	General	Hot Melt Adhesives	Hot Melt Adhesives	Hot Melt Adhesives	Hot Melt Adhesives	Blown Film	Industrial Package Collation	General	Packaging Film
Density, g/cm³ (Base Value) ASTM D 792	0.868	0.870	0.870	0.870	0.870	0.874	0.878	0.875	0.875	0.885	0.897
Melt Index, g/10 min (2.16 kg @ 190°C) ASTM D 1238	0.5	1	5	1,250[3]	1,000[3]	500[3]	660[3]	1	3	1	1.6
DSC Melting Peak, °C (10°C/min)[4]	55	55	63	70	68	70	68	75	68	82	96
Vicat Softening Point, °C[4]	46	43	45	N/A[5]	N/A[5]	N/A[5]	N/A[5]	56	48	57	77
Contains Slip Agent	—	—	—	—	—	—	—	—	—	—	—
Contains Antiblock Agent	—	—	—	—	—	—	—	—	—	—	—
Contains Process Aids	—	—	—	—	—	—	—	—	—	—	—

[1] Typical properties; not to be construed as specifications. Users should confirm results by their own tests.
[2] Available only in Europe.
[3] Values are approximate; points are outside normal testing range.
[4] Dow Method. Test protocols and additional information available upon request.
[5] Data Not Available; could not be tested by current methods.

Typical Applications for AFFINITY™ POPs

- Meat
- Cheese
- Fresh-cut Produce
- Dry Foods (e.g., crackers, cookies, cereal, cake mixes)
- Stand-up Pouches

Figure 2: AFFINITY™ POPs and POEs — DSC Melting Peak and Vicat Softening Point vs. Density[1,2]



[1] Data per tests conducted by Dow. Test protocols and additional information available upon request. Properties shown are typical, not to be construed as specifications. Users should confirm results by their own tests.
[2] Dow Method. Test protocols and additional information available upon request.

Table 2: Typical Properties of AFFINITY™ Polyolefin Plastomers (Density: 0.899-0.910 g/cm³)[1]

AFFINITY™ POP Grades												
Property/ Product Information	**PF 1146G**	**PF 1162G**	**PL 1280G**	**SQ 1503UE[2]**	**PL 1880G**	**PL 1881G**	**PL 1888G**	**PL 1850G**	**PT 1450G1**	**PT 1451G1**	**PL 1840G**	**PL 1845G**
Processing Type	Blown Film Extrusion	Blown Film Extrusion	Cast Film Extrusion	Cast Film Extrusion	Blown Film Extrusion	Blown Film Extrusion	Blown Film Extrusion	Blown Film Extrusion	Extrusion Coating	Extrusion Coating	Blown Film Extrusion	Cast Film Extrusion
Typical Applications	Packaging Film	Packaging Film	Packaging Sealant	Rotomolding Processes	Packaging Sealant	Packaging Sealant	Packaging Sealant	Packaging Sealant	Packaging Sealant	Packaging Coating	Packaging Sealant	Packaging Sealant
Density, g/cm³ (Base Value) ASTM D 792	0.899 (0.897)	0.900 (0.897)	0.900	0.900	0.902	0.904 (0.902)	0.904 (0.902)	0.902	0.902	0.902	0.909	0.910
Melt Index, g/10 min (2.16 kg @ 190°C) ASTM D 1238	1	1	6	6	1	1	1	3	7.5	7.5	1	3.5
DSC Melting Peak, °C (10°C/min)[3]	95	95	96	97	99	100	98	98	98	98	106	103
Vicat Softening Point, °C[3]	78	76	81	82	86	86	85	85	77	79	95	95
Contains Slip Agent	Yes	Yes	—	—	—	Yes	Yes	—	—	—	—	—
Contains Antiblock Agent	Yes	Yes	—	—	—	Yes	Yes	—	—	—	—	—
Contains Process Aids	Yes	—	—	—	—	—	Yes	—	—	—	—	—

[1] Typical properties; not to be construed as specifications. Users should confirm results by their own tests.
[2] Available only in Europe.
[3] Dow Method. Test protocols and additional information available upon request.

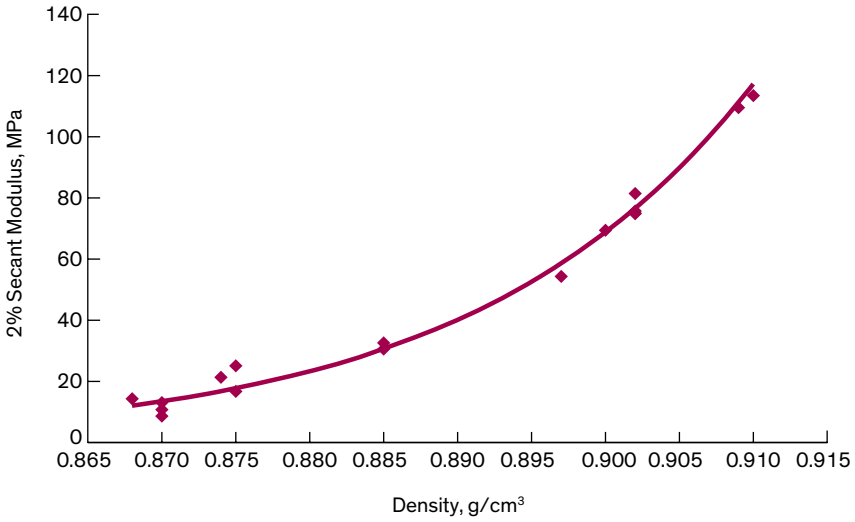
AFFINITY™ POP Attributes

- Exceptional Sealability
- Great Optics
- Excellent Organoleptics
- High Oxygen Transmission Rate
- Exceptional Toughness

AFFINITY™ GA POE Attributes

- More Powerful Bonds
- Greater Sealing Mileage per Pound (Kg)
- Broader Temperature Range Performance
- Less Plugging and Clogging
- Virtually No Char, Discoloration, or Odor
- Improved Packaging Economy
- Less Downtime and Maintenance Expense

Figure 3: AFFINITY™ POPs and POEs — 2% Secant Modulus vs. Density[1,2]



[1] Data per tests conducted by Dow. Test protocols and additional information available upon request. Properties shown are typical, not to be construed as specifications. Users should confirm results by their own tests.
[2] Dow Method. Test protocols and additional information available upon request.

North America

U.S. & Canada 1 800 441 4369
1 989 832 1426

Mexico + 1 800 441 4369

Latin America

Argentina + 54 11 4319 0100
Brazil + 55 11 5188 9000
Colombia + 57 1 219 6000
Mexico + 52 55 5201 4700

Europe/Middle East + 800 3694 6367
+ 31 115 672626

Italy + 800 783 825

South Africa + 800 99 5078

Asia Pacific + 800 7776 7776
+ 603 7965 5392

dow.com
dowelastomers.com

Form No. 258-12921-0713X SMG
SMG 12521