



ENGAGE™ 8150

Polyolefin Elastomer

Overview

ENGAGE™ 8150 Polyolefin Elastomer is an ethylene-octene copolymer that has excellent flow characteristics and provides superb impact properties in blends with polypropylene (PP) and polyethylene (PE) and is widely used in TPO applications where excellent low temperature impact properties are desired.

ENGAGE 8150 provides high filler loading capability and outstanding peroxide cure capability. When cross-linked by peroxide, silane, or irradiation, it gives exceptional heat aging, compression set, and weather resistance properties and may be used to produce high performance electrical insulation.

Main Characteristics:

- Pellet form
- Excellent flow characteristics
- Improved impact in polypropylene and polyethylene
- High filler loading
- Peroxide, silane, and radiation curable
- Exceptional heat aging, compression set, and weather resistance when cured

Applications:

- General purpose thermoplastic elastomers
- Impact modification
- Thermoplastic olefins (TPO)
- Wire and cable

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.868 g/cm ³	0.868 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	0.50 g/10 min	0.50 g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	33 MU	33 MU	ASTM D1646
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 100% Secant (Compression Molded)	377 psi	2.60 MPa	ASTM D638 ¹
Tensile Strength (Break, Compression Molded)	1380 psi	9.50 MPa	ASTM D638 ¹
Tensile Elongation			ASTM D638 ¹
Break, Compression Molded	810 %	810 %	
Flexural Modulus			ASTM D790
1% Secant: Compression Molded	2200 psi	15.2 MPa	
2% Secant: Compression Molded	2090 psi	14.4 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tear Strength	213 lbf/in	37.3 kN/m	ASTM D624 ²
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Compression Molded	70	70	
Shore D, 1 sec, Compression Molded	20	20	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature (DSC)	-61.6 °F	-52.0 °C	Dow Method
Vicat Softening Temperature	115 °F	46.0 °C	ASTM D1525
Melting Temperature (DSC)	131 °F	55.0 °C	Dow Method ³
Peak Crystallization Temperature (DSC)	108 °F	42.0 °C	Dow Method

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ 20 in/min (510 mm/min)

² Die C

³ 10°C/min

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Additional Information

North America		Europe/Middle East	+800-3694-6367
U.S. & Canada:	1-800-441-4369		+32-3-450-2240
	1-989-832-1426	Italy:	+800-783-825
Mexico:	+1-800-441-4369		
Latin America		South Africa	+800-99-5078
Argentina:	+54-11-4319-0100		
Brazil:	+55-11-5188-9000		
Colombia:	+57-1-219-6000	Asia Pacific	+800-7776-7776
Mexico:	+52-55-5201-4700		+603-7965-5392

www.dowplastics.com

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