



ENGAGE™ 8440G Polyolefin Elastomer

Overview ENGAGE™ 8440G Polyolefin Elastomer is an ethylene-octene copolymer that performs well in a wide range of thermoplastic elastomer applications. It is an excellent thermoplastic elastomer for blending and compounding.

Main Characteristics:

- Pellet form

Applications:

- Thermoplastic elastomers
- Compounding

Additive • Antiblock: No • Slip: No • Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.897 g/cm ³	0.897 g/cm ³	ASTM D792
Base Density ¹	0.897 g/cm ³	0.897 g/cm ³	Dow Method
Melt Index (190°C/2.16 kg)	1.6 g/10 min	1.6 g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	13 MU	13 MU	ASTM D1646
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 100% Secant ² (Compression Molded)	914 psi	6.30 MPa	ASTM D638
Tensile Strength ² (Break, Compression Molded)	2960 psi	20.4 MPa	ASTM D638
Tensile Elongation ² Break, Compression Molded	690 %	690 %	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : Compression Molded	7860 psi	54.2 MPa	
2% Secant : Compression Molded	7880 psi	54.3 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tear Strength ³	451 lbf/in	78.9 kN/m	ASTM D624
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Compression Molded	86	86	
Shore D, 1 sec, Compression Molded	36	36	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature	-27.4 °F	-33.0 °C	Dow Method
Vicat Softening Temperature	167 °F	75.0 °C	ASTM D1525
Melting Temperature (DSC) ⁴	199 °F	93.0 °C	Dow Method
Peak Crystallization Temperature (DSC)	169 °F	76.0 °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 Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

² 20 in/min (510 mm/min)

³ Die C

⁴ 10°C/min

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