



# ENGAGE™ 8402

## Polyolefin Elastomer

### Technical Information

#### Overview

ENGAGE™ 8402 Polyolefin Elastomer is an ethylene-octene copolymer that offers excellent performance in durable, flexible injection molded industrial and consumer goods.

ENGAGE 8402 provides high clarity in products requiring visual inspection and allows the use of hot runner molds to enhance production efficiency. In addition, its low density can help control resin and production costs, while reducing the weight of end products.

#### Main Characteristics:

- Pellet form
- Excellent flow characteristics
- High clarity
- Reduced part weight

#### Applications:

- Injection molded industrial and consumer durable goods
- Impact modification

#### Complies with:

- EU, No 10/2011
- U.S. FDA 177.1520(c)3.2c
- U.S. FDA DMF

Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.902 g/cm <sup>3</sup>	0.902 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	30 g/10 min	30 g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	2 MU	2 MU	ASTM D1646
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 100% Secant <sup>1</sup> (Compression Molded)	972 psi	6.70 MPa	ASTM D638
Tensile Strength <sup>1</sup> (Break, Compression Molded)	1640 psi	11.3 MPa	ASTM D638
Tensile Elongation <sup>1</sup> Break, Compression Molded	910 %	910 %	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : Compression Molded	10500 psi	72.6 MPa	
2% Secant : Compression Molded	10400 psi	72.0 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tear Strength <sup>2</sup>	452 lbf/in	79.1 kN/m	ASTM D624
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Compression Molded	88	88	
Shore D, 1 sec, Compression Molded	34	34	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature	-32.8 °F	-36.0 °C	Dow Method
Vicat Softening Temperature	162 °F	72.2 °C	ASTM D1525
Melting Temperature (DSC) <sup>3</sup>	205 °F	96.0 °C	Dow Method
Peak Crystallization Temperature (DSC)	177 °F	80.4 °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.

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<sup>1</sup> 20 in/min (510 mm/min)

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<sup>2</sup> Die C

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<sup>3</sup> 10°C/min

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