



# ENGAGE™ 8411 Polyolefin Elastomer

**Overview** ENGAGE™ 8411 Polyolefin Elastomer is an ethylene-octene elastomer that offers excellent performance in durable injection molded industrial and consumer goods and compression molded gaskets.

ENGAGE 8411 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. ENGAGE 8411 also provides good impact properties in blends with polypropylene (PP) and polyethylene (PE), especially in applications like automotive thermoplastic olefins (TPOs), requiring high melt flow modifiers.

**Main Characteristics:**

- Pellet form
- High clarity
- Low density
- Improved impact in polypropylene and polyethylene
- Reduced part weight

**Applications:**

- Automotive Thermoplastic Olefins (TPO)
- Injection molding
- Industrial and consumer goods
- Compression molded gaskets

**Complies with:**

- Europe EU-Directive 2002/72/EC
- US, FDA FCN 424
- Consult the regulations for complete details.

<b>Physical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Density	0.880 g/cm <sup>3</sup>	0.880 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	18 g/10 min	18 g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	3 MU	3 MU	ASTM D1646
<b>Mechanical</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Tensile Modulus - 100% Secant (Compression Molded)	479 psi	3.30 MPa	ASTM D638 <sup>1</sup>
Tensile Strength (Break, Compression Molded)	1060 psi	7.30 MPa	ASTM D638 <sup>1</sup>
Tensile Elongation Break, Compression Molded	1000 %	1000 %	ASTM D638 <sup>1</sup>
Flexural Modulus			ASTM D790
2% Secant: Compression Molded	2970 psi	20.5 MPa	
1% Secant: Compression Molded	2830 psi	19.5 MPa	
<b>Elastomers</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Tear Strength	271 lbf/in	47.5 kN/m	ASTM D624 <sup>2</sup>
<b>Hardness</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Compression Molded	81	81	
Shore D, 1 sec, Compression Molded	27	27	
<b>Thermal</b>	<b>Nominal Value (English)</b>	<b>Nominal Value (SI)</b>	<b>Test Method</b>
Glass Transition Temperature (DSC)	-58.0 °F	-50.0 °C	Dow Method
Vicat Softening Temperature	113 °F	45.0 °C	ASTM D1525
Melting Temperature (DSC)	169 °F	76.0 °C	Dow Method <sup>3</sup>
Peak Crystallization Temperature (DSC)	129 °F	54.0 °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.

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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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