



ENGAGE™ 8401 REN Polyolefin Elastomer

Description

ENGAGE™ 8401 REN Polyolefin Elastomer is an ethylene-octene copolymer that offers excellent performance in durable, flexible injection molded industrial and consumer goods.

ENGAGE™ 8401 REN 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

Properties¹

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method ²
Density	0.885	g/cm ³	0.885	g/cm ³	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	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tensile Modulus – 100% Secant ³ (Compression Molded)	580	psi	4.00	MPa	ASTM D638
Tensile Strength ³ (Break, Compression Molded)	1230	psi	8.50	MPa	ASTM D638
Tensile Elongation ³ (Break, Compression Molded)	940	%	940	%	ASTM D638
Flexural Modulus					ASTM D790
1% Secant: Compression Molded	4450	psi	30.7	MPa	
2% Secant: Compression Molded	4440	psi	30.6	MPa	

1. Typical properties: these are not to be construed as specifications.
2. ASTM: American Society for Testing and Materials
3. 20 in/min (510 mm/min).



Properties (Cont.)

Elastomers	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tear Strength ⁴	321	lbf/in	56.2	kN/m	ASTM D624
Hardness	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Durometer Hardness					ASTM D2240
Shore A, 1 sec, Compression Molded	84		84		
Shore D, 1 sec, Compression Molded	26		26		
Thermal	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Glass Transition Temperature	-52.6	°F	-47.0	°C	Internal Method
Vicat Softening Temperature	120	°F	49.0	°C	ASTM D1525
Melting Temperature (DSC) ⁵	176	°F	80.0	°C	Internal Method
Peak Crystallization Temperature (DSC)	138	°F	59.0	°C	Internal Method

4. Die C.
5. 10°C/min.

