



Technical Data Sheet

ENGAGE™ 8407 REN Polyolefin Elastomer

Overview

ENGAGE™ 8407 REN Polyolefin Elastomer is an ethylene-octene copolymer that offers excellent performance in durable injection molded industrial and consumer goods and compression molded gaskets.

ENGAGE™ 8407 REN Polyolefin Elastomer provides high clarity in products requiring visual inspection and allows the use of hot runner molds to enhance production efficiency. In addition, the low density can help control resin and production costs, while reducing the weight of end products. ENGAGE™ 8407 REN Polyolefin Elastomer also provides good impact properties in blends with polypropylene (PP) and polyethylene (PE), especially in applications requiring high melt flow modifiers.

Main Characteristics:

- Pellet form
- Excellent flow characteristics
- Improved impact in polypropylene and polyethylene

Applications:

- Injection molded industrial and consumer durable goods
- Impact modification

Complies with:

- Europe Commission Regulation (EU) No 10/2011
- U.S. FDA 21 CFR 177.1520(c) 3.2c
- ISCC PLUS certification for bio-circular-based plastics

Consult the regulations for complete details.

Sustainability Attribute:



Physical Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method ¹
Density	0.870	g/cm ³	0.870	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					
Tensile Strength ² (Break, Compression Molded)	479	psi	3.30	MPa	ASTM D638
Tensile Elongation ² Break, Compression Molded	1000	%	1000	%	ASTM D638
Flexural Modulus — 2% Secant (Compression Molded)	1750	psi	12.1	MPa	ASTM D790
Hardness					
Durometer Hardness					ASTM D2240
Shore A, 1 sec, Compression Molded	72		72		
Shore D, 1 sec, Compression Molded	20		20		
Thermal					
Glass Transition Temperature	-65.2	°F	-54.0	°C	Dow Method
Vicat Softening Temperature	106	°F	41.0	°C	ASTM D1525
Melting Temperature (DSC) ³	140	°F	60.0	°C	Dow Method
Additional Information					
Properties measured on product without talc dusting.					

1. ASTM: American Society for Testing and Materials
2. 20 in/min (510 mm/min)
3. 10°C/min

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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