



Technical Data Sheet

ENGAGE™ 8200 REN Polyolefin Elastomer

Overview

ENGAGE™ 8200 REN Polyolefin Elastomer is an ethylene-octene copolymer that has excellent flow characteristics and performs well in a wide range of general purpose thermoplastic elastomer applications.

It provides superb impact properties in blends with polypropylene (PP) and polyethylene (PE), especially in applications requiring slightly higher melt flow. ENGAGE™ 8200 REN Polyolefin Elastomer also provides high filler loading capability, excellent electrical properties, and (when cross-linked) exceptional heat aging, compression set, and weather resistance.

Sustainability Attribute:



Main Characteristics:

- Pellet form
- Excellent flow characteristics
- High filler loading
- Excellent electrical properties
- Improved impact in polypropylene and polyethylene
- Exceptional heat aging, compression set, and weather resistance when cured

Applications:

- General purpose thermoplastic elastomers
- Impact modification
- Wire and cable

Complies with:

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

Consult the regulations for complete details.



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)	5.0	g/10 min	5.0	g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	8	MU	8	MU	ASTM D1646
Mechanical					
Tensile Modulus - 100% Secant ²(Compression Molded)	334	psi	2.30	MPa	ASTM D638
Tensile Strength² (Break, Compression Molded)	827	psi	5.70	MPa	ASTM D638
Tensile Elongation² (Break, Compression Molded)	1100	%	1100	%	ASTM D638
Flexural Modulus 1% Secant, Compression Molded	1580	psi	10.9	MPa	ASTM D790
2% Secant, Compression Molded	1570	psi	10.8	MPa	
Elastomers					
Tear Strength³	212	lbf/in	37.1	kN/m	ASTM D624
Hardness					
Durometer Hardness					ASTM D2240
Shore A, 1 sec, Compression Molded	66		66		
Shore D, 1 sec, Compression Molded	17		17		
Thermal					
Glass Transition Temperature	-63.4	°F	-53.0	°C	Dow Method
Vicat Softening Temperature	98.6	°F	37.0	°C	ASTM D1525
Melting Temperature (DSC) ⁴	138	°F	59.0	°C	Dow Method
Peak Crystallization Temperature (DSC)	111	°F	44.0	°C	Dow Method

1. ASTM: American Society for Testing and Materials
2. 20 in/min (510 mm/min)
3. Die C
4. 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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