



ENGAGE™ 8842 Polyolefin Elastomer

Overview ENGAGE™ 8842 Polyolefin Elastomer is an ultra-low density ethylene-octene copolymer which offers exceptional properties of an ultra-low density elastomer with the added potential of handling this polymer in pellet form.

ENGAGE 8842 has excellent flow characteristics and provides superb impact properties in blends with polypropylene (PP) and polyethylene (PE). It performs well in TPO applications where superior low temperature impact properties are desired.

Main Characteristics:

- Pellet form
- Excellent flow characteristics
- Improved impact in polypropylene and polyethylene
- Talc dusted (untreated, 1 µm)

Applications:

- Injection molded industrial and consumer durable goods
- Impact modification of TPO

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.857 g/cm ³	0.857 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	1.0 g/10 min	1.0 g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	25 MU	25 MU	ASTM D1646
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 100% Secant (Compression Molded)	203 psi	1.40 MPa	ASTM D638 ¹
Tensile Strength (Break, Compression Molded)	435 psi	3.00 MPa	ASTM D638 ¹
Tensile Elongation			ASTM D638 ¹
Break, Compression Molded	1200 %	1200 %	
Flexural Modulus			ASTM D790
1% Secant: Compression Molded	653 psi	4.50 MPa	
2% Secant: Compression Molded	580 psi	4.00 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tear Strength	145 lbf/in	25.4 kN/m	ASTM D624 ²
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Compression Molded	54	54	
Shore D, 1 sec, Compression Molded	11	11	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature (DSC)	-72.4 °F	-58.0 °C	Dow Method
Melting Temperature (DSC)	100 °F	38.0 °C	Dow Method ³
Peak Crystallization Temperature (DSC)	68.0 °F	20.0 °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.

¹ 20 in/min (510 mm/min)

² Die C

³ 10°C/min

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