



ENGAGE™ 7457 Polyolefin Elastomer

Overview ENGAGE 7457 Polyolefin Elastomer is an ethylene butene copolymer developed for use as a high efficiency impact modifier for thermoplastic polyolefin (TPO) applications.

This product is delivered with a nominal talc partitioning agent to assist in material handling.

Main Characteristics:

- Excellent polypropylene dispersion
- Enhanced impact performance
- Pellet form
- Talc dusted (untreated, 1µm)

Applications

- TPO Impact Modification

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.862 g/cm ³	0.862 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	3.6 g/10 min	3.6 g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	9 MU	9 MU	ASTM D1646
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 100% Secant ¹ (Compression Molded)	190 psi	1.31 MPa	ASTM D638
Tensile Strength ¹ (Break, Compression Molded)	260 psi	1.79 MPa	ASTM D638
Tensile Elongation ¹ Break, Compression Molded	> 600 %	> 600 %	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : Compression Molded	600 psi	4.14 MPa	
2% Secant : Compression Molded	680 psi	4.69 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tear Strength ²	110 lbf/in	19.3 kN/m	ASTM D624
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore A, Compression Molded	50	50	
Shore D, Compression Molded	12	12	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature	-69.0 °F	-56.1 °C	Dow Method
Melting Temperature (DSC) ³	104 °F	40.0 °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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Published: 2012-07-18

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