

## Technical Information

# ENGAGE™ HM 7387

## Polyolefin Elastomer

### Overview

ENGAGE™ HM 7387 Polyolefin Elastomer is an ethylene-butene copolymer that has higher molecular weight, better toughness, and higher melt strength than other commercially available polyolefin elastomers.

It can serve as an extender for SEBS, impart lower gloss in hard TPOs, provide the basis for flexible soft-touch compounds, and is well suited for extruded applications such as wire and cable. ENGAGE HM 7387 is also useful for impact modification of various thermoplastic resins.

#### Main Characteristics:

- Pellet form
- High melt strength
- Improved toughness
- Talc dusted (untreated, 1 µm)

#### Applications:

- Polymer modification
- Extender for SEBS
- Soft-touch compounds
- Reduced gloss TPOs
- Wire and cable
- Impact modification

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.870 g/cm <sup>3</sup>	0.870 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	< 0.50 g/10 min	< 0.50 g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	54 MU	54 MU	ASTM D1646
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 100% Secant <sup>1</sup> (Compression Molded)	421 psi	2.90 MPa	ASTM D638
Tensile Strength <sup>1</sup> (Break, Compression Molded)	1320 psi	9.10 MPa	ASTM D638
Tensile Elongation <sup>1</sup> Break, Compression Molded	810 %	810 %	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : Compression Molded	1770 psi	12.2 MPa	
2% Secant : Compression Molded	1670 psi	11.5 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tear Strength <sup>2</sup>	232 lbf/in	40.6 kN/m	ASTM D624
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore A, Compression Molded	66	66	
Shore D, Compression Molded	22	22	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature	-61.6 °F	-52.0 °C	Dow Method
Vicat Softening Temperature	115 °F	46.0 °C	ASTM D1525
Melting Temperature (DSC) <sup>3</sup>	122 °F	50.0 °C	Dow Method
Peak Crystallization Temperature (DSC)	100 °F	38.0 °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.

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<sup>1</sup> 20 in/min (510 mm/min)

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<sup>2</sup> Die C

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<sup>3</sup> 10°C/min

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