Technical Information

ENGAGE™ HM 7487
Polyolefin Elastomer

Overview

ENGAGE™ HM 7487 Polyolefin Elastomer is an ethylene-butene copolymer with 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 7487 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

Complies with:

- U.S. FDA FCN 368

Consult the regulation for complete details.

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.860	g/cm³	0.860	g/cm³	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))	47	MU	47	MU	ASTM D1646
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength [1]					ASTM D638
Break, Compression Molded	348	psi	2.40	MPa	
100% Strain, Compression Molded	218	psi	1.50	MPa	
Tensile Elongation [1]					ASTM D638
Break, Compression Molded	> 600	%	> 600	%	
Flexural Modulus					ASTM D790
1% Secant : Compression Molded	276	psi	1.90	MPa	
2% Secant : Compression Molded	174	psi	1.20	MPa	
Elastomers	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tear Strength [2]	160	lbf/in	28.0	kN/m	ASTM D624
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Durometer Hardness					ASTM D2240
Shore A, 1 sec, Compression Molded	58		58		
Shore D, 1 sec, Compression Molded	14		14		
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Glass Transition Temperature	-70.6	°F	-57.0	°C	Dow Method
Melting Temperature (DSC) [3]	98.6	°F	37.0	°C	Dow Method
Peak Crystallization Temperature (DSC)	62.6	°F	17.0	°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