ENGAGE™ 8457 DA

Polyolefin Elastomer

The Dow Chemical Company

Message:

ENGAGE™ 8457 Polyolefin Elastomer DA is an ethylene-octene copolymer that offers excellent toughness, softness, and optical properties. It has excellent compatibility with other polyolefins, allowing for efficient blending and coextrusion.
ENGAGE 8457 DA provides excellent flow properties and is efficiently cross-linked by peroxide, silane, or irradiation. When cross-linked, it gives exceptional heat aging, compression set, and weather resistance properties.
Main Characteristics
Pellet form
Good clarity, toughness, and flexibility
Excellent compatibility with polyolefins
Exceptional heat aging, compression set, and weather resistance when cured
Talc dusted (untreated, 1µm)
Applications
Blends

General Information			
Forms	Pellets		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	0.875	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	3.0	g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 121°C)	11	MU	ASTM D1646
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Compression Molded	74		
Shore D, 1 sec, Compression Molded	24		
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus - 100% Secant [1] (Compression Molded)	3.00	MPa	ASTM D638
Tensile Strength [2] (Break, Compression Molded)	11.2	MPa	ASTM D638
Tensile Elongation [3] (Break, Compression Molded)	950	%	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : Compression Molded	16.5	MPa	
2% Secant : Compression Molded	16.8	MPa	
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tear Strength	45.1	kN/m	ASTM D624
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature	-51.0	°C	Internal Method
Vicat Softening Temperature	48.0	°C	ASTM D1525
Melting Temperature (DSC) [4]	66.0	°C	Internal Method
Peak Crystallization Temperature (DSC)	48.0	°C	Internal Method

NOTE	
1.	510 mm/min
2.	510 mm/min
3.	510 mm/min
4.	10°C/min

Recommended distributors for this material

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