



## ENGAGE™ PV 8660 Polyolefin Elastomer

### Overview

ENGAGE™ PV 8660 Polyolefin Elastomer is an ethylene-octene copolymer that offers excellent performance in photovoltaic module encapsulant applications.

ENGAGE™ PV 8660 provides high transmittance, excellent electrical properties, and exceptional anti-damp heat aging, anti-UV aging, and weather resistance properties.

Main Characteristics:

- Pellet form
- High volume resistivity
- High transmittance
- Low water vapor transmission rate
- Exceptional anti-damp heat aging, anti-UV aging, and weather resistance when cured

Applications:

- Photovoltaic module encapsulant

### Sustainability Attribute:



### Typical Properties

Physical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method <sup>1</sup>
Density	0.872	g/cm <sup>3</sup>	0.872	g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	4.8	g/10 min	4.8	g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	8	MU	8	MU	ASTM D1646
Mechanical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tensile Modulus — 100% Secant <sup>2</sup> (Compression Molded)	334	psi	2.30	MPa	ASTM D638
Tensile Strength <sup>2</sup> (Break, Compression Molded)	827	psi	5.70	MPa	ASTM D638
Tensile Elongation <sup>2</sup> Break, Compression Molded	1100	%	1100	%	ASTM D638
Flexural Modulus					ASTM D790
1% Secant: Compression Molded	1580	psi	10.9	MPa	
2% Secant: Compression Molded	1570	psi	10.8	MPa	
Elastomers	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Tear Strength <sup>3</sup>	212	lbf/in	37.1	kN/m	ASTM D624



## Typical Properties (Cont.)

Hardness	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Durometer Hardness					ASTM D2240
Shore A, 1 sec, Compression Molded	66		66		
Shore D, 1 sec, Compression Molded	17		17		
Thermal	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Glass Transition Temperature	-63.4	°F	-53.0	°C	Dow Method
Vicat Softening Temperature	98.6	°F	37.0	°C	ASTM D1525
Melting Temperature (DSC) <sup>4</sup>	162	°F	72.0	°C	Dow Method
Peak Crystallization Temperature (DSC)	111	°F	44.0	°C	Dow Method
Electrical	Nominal Value	Unit (English)	Nominal Value	Unit (SI)	Test Method
Volume Resistivity	> 1.0E+15	ohms·cm	> 1.0E+15	ohms·cm	Dow Method

4. 10°C/min

