



ENGAGE™ PV 8658 Polyolefin Elastomer

Overview ENGAGE™ PV 8658 Polyolefin Elastomer is an ethylene-octene copolymer that offers excellent performance in photovoltaic module encapsulant applications.

ENGAGE™ PV 8658 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

Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.902 g/cm ³	0.902 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	30 g/10 min	30 g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	2 MU	2 MU	ASTM D1646
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 100% Secant ¹ (Compression Molded)	972 psi	6.70 MPa	ASTM D638
Tensile Strength ¹ (Break, Compression Molded)	1640 psi	11.3 MPa	ASTM D638
Tensile Elongation ¹ Break, Compression Molded	910 %	910 %	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : Compression Molded	10500 psi	72.6 MPa	
2% Secant : Compression Molded	10400 psi	72.0 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tear Strength ²	452 lbf/in	79.1 kN/m	ASTM D624
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Compression Molded	88	88	
Shore D, 1 sec, Compression Molded	34	34	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature	-32.8 °F	-36.0 °C	Dow Method
Vicat Softening Temperature	162 °F	72.2 °C	ASTM D1525
Melting Temperature (DSC) ³	205 °F	96.0 °C	Dow Method
Peak Crystallization Temperature (DSC)	177 °F	80.4 °C	Dow Method
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Volume Resistivity	> 1.0E+15 ohms-cm	> 1.0E+15 ohms-cm	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

