



ENGAGE™ PV 8669

Polyolefin Elastomer

Overview

ENGAGE™ PV 8669 Polyolefin Elastomer is an ethylene-octene copolymer that offers excellent performance in photovoltaic module encapsulant applications.

ENGAGE™ PV 8669 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:

- PV module encapsulant

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.873 g/cm ³	0.873 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	14 g/10 min	14 g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	3 MU	3 MU	ASTM D1646
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus - 100% Secant ¹ (Compression Molded)	413 psi	2.85 MPa	ASTM D638
Tensile Strength ² (Break, Compression Molded)	863 psi	5.95 MPa	ASTM D638
Tensile Elongation ² Break, Compression Molded	> 1100 %	> 1100 %	ASTM D638
Flexural Modulus			ASTM D790
1% Secant : Compression Molded	6630 psi	45.7 MPa	
2% Secant : Compression Molded	4890 psi	33.7 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tear Strength ³	230 lbf/in	40.2 kN/m	ASTM D624
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Compression Molded	68	68	
Shore D, 1 sec, Compression Molded	13	13	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Glass Transition Temperature	-63.4 °F	-53.0 °C	Dow Method
Vicat Softening Temperature	104 °F	40.0 °C	ASTM D1525
Melting Temperature (DSC) ⁴	169 °F	76.0 °C	Dow Method
Peak Crystallization Temperature	126 °F	52 °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.

¹ 510 mm/min

² 20 in/min (510 mm/min)

³ Die C

⁴ 10°C/min

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