# ENGAGE™ 8450G

Polyolefin Elastomer

The Dow Chemical Company

## Message:

ENGAGE™ 8450G Polyolefin Elastomer is an ethylene-octene copolymer that performs well in a wide range of thermoplastic elastomer applications. It has excellent compatibility with other polyolefins, allowing for efficient blending and coextrusion.
ENGAGE 8450G 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
Excellent flow characteristics
Excellent compatibility with other olefins
Peroxide, silane, and radiation curable
Exceptional heat aging, compression set, and weather resistance when cured
Applications:
General purpose thermoplastic elastomers

| General Information | | | |
|---|---|---|---|
| Forms | Pellets | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Specific Gravity | 0.902 | 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) | 10 | MU | ASTM D1646 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Durometer Hardness | | | ASTM D2240 |
| Shore A, 1 sec, Compression Molded | 90 | | |
| Shore D, 1 sec, Compression Molded | 41 | | |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus - 100% Secant [1] (Compression Molded) | 7.30 | MPa | ASTM D638 |
| Tensile Strength [2] (Break, Compression Molded) | 22.4 | MPa | ASTM D638 |
| Tensile Elongation [3] (Break, Compression Molded) | 750 | % | ASTM D638 |
| Flexural Modulus | | | ASTM D790 |
| 1% Secant : Compression Molded | 76.3 | MPa | |
| 2% Secant : Compression Molded | 75.6 | MPa | |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |
| Tear Strength [4] | 90.2 | kN/m | ASTM D624 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Glass Transition Temperature | -32.0 | °C | Internal Method |
| Vicat Softening Temperature | 84.0 | °C | ASTM D1525 |
| Melting Temperature (DSC) [5] | 97.0 | °C | Internal Method |
| Peak Crystallization Temperature (DSC) | 80.0 | °C | Internal Method |

| NOTE | |
|---|---|
| 1. | 510 mm/min |
| 2. | 510 mm/min |
| 3. | 510 mm/min |
| 4. | Die C |
| 5. | 10°C/min |



## Recommended distributors for this material

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