



ENGAGE™ 8540 Polyolefin Elastomer

Overview ENGAGE™ 8540 Polyolefin Elastomer is an ethylene-octene copolymer that is well suited to foamed applications and offers excellent performance for profile extrusion of tubing and hoses.

It has good clarity, toughness, and flexibility. ENGAGE 8540 also has excellent compatibility with other polyolefins, allowing for efficient blending and coextrusion.

Main Characteristics:

- Pellet form
- Good clarity, toughness, and flexibility
- Excellent compatibility with polyolefins

Complies with:

- Europe EU-Directive 2002/72/EC
- Japan Hygienic Olefin and Styrene Plastics Association
- NSF/ANSI Standard 51-Food Equipment Materials
- U.S. FDA FCN 424

Applications:

- Blends
- Foams
- Coextrusion
- Profile extrusion and tubing

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|----------------------------------------------------|--------------------------------|---------------------------|-------------------------|
| Density | 0.908 g/cm ³ | 0.908 g/cm ³ | ASTM D792 |
| Melt Index (190°C/2.16 kg) | 1.0 g/10 min | 1.0 g/10 min | ASTM D1238 |
| Mooney Viscosity (ML 1+4, 250°F (121°C)) | 20 MU | 20 MU | ASTM D1646 |
| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Tensile Modulus - 100% Secant (Compression Molded) | 1390 psi | 9.60 MPa | ASTM D638 ¹ |
| Tensile Strength (Break, Compression Molded) | 4050 psi | 27.9 MPa | ASTM D638 ¹ |
| Tensile Elongation | | | ASTM D638 ¹ |
| Break, Compression Molded | 750 % | 750 % | |
| Flexural Modulus | | | ASTM D790 |
| 1% Secant: Compression Molded | 16500 psi | 114 MPa | |
| 2% Secant: Compression Molded | 15600 psi | 108 MPa | |
| Elastomers | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Tear Strength | 589 lbf/in | 103 kN/m | ASTM D624 ² |
| Hardness | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Durometer Hardness | | | ASTM D2240 |
| Shore A, 1 sec, Compression Molded | 90 | 90 | |
| Shore D, 1 sec, Compression Molded | 47 | 47 | |
| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Glass Transition Temperature (DSC) | -25.6 °F | -32.0 °C | Dow Method |
| Vicat Softening Temperature | 207 °F | 97.0 °C | ASTM D1525 |
| Melting Temperature (DSC) | 219 °F | 104 °C | Dow Method ³ |
| Peak Crystallization Temperature (DSC) | 194 °F | 90.0 °C | 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

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