



ENGAGE 8003

Polyolefin Elastomer

ENGAGE™ 8003 Polyolefin Elastomer is an ethylene-octene copolymer that has excellent flow characteristics and performs well in a wide variety of general purpose thermoplastic elastomer applications.

ENGAGE 8003 provides superb impact properties in blends with polypropylene (PP) and polyethylene (PE). It also provides high filler loading capability and outstanding peroxide cure capability. When cross-linked by peroxide, silane, or irradiation, it gives exceptional heat aging, compression set, and weather resistance properties, and may be used to produce high performance electrical insulation and jacketing.

Main Characteristics

- Pellet form
- Excellent flow characteristics
- Improved impact in polypropylene and polyethylene
- Complies with U.S. FDA 21 CFR 177.1520(c)3.2c
- Complies with Europe EU-Directive 2002/72/EC (See NOTES)
- Complies with Japan Hygienic Olefin and Styrene Plastics Association
- Complies with NSF/ANSI Standard 51-Food Equipment Materials
- High filler loading
- Peroxide, silane, and radiation curable
- Exceptional heat aging, compression set, and weather resistance when cured

Applications

- General purpose thermoplastic elastomers
- Wire and cable
- Impact modification

Properties⁽¹⁾

Typical Physical	Test Method	Value
Melt Index, 190°C/2.16 kg, dg/min	ASTM D 1238	1.0
Density, g/cm ³	ASTM D 792	0.885
Mooney Viscosity, ML 1 + 4 @ 121°C	ASTM D 1646	22
Typical Molded⁽²⁾		
Ultimate Tensile Strength, MPa	ASTM D 638 ⁽³⁾	18.2
Ultimate Tensile Elongation, %	ASTM D 638 ⁽³⁾	640
100% Modulus	ASTM D 638 ⁽³⁾	4.8
Hardness	ASTM D 2240	
Shore A		84
Shore D		31
Flexural Modulus, MPa	ASTM D 790	
1% Secant		33.7
2% Secant		32.6
Tear Strength, Type C, kN/m	ASTM D 624	61
Typical Thermal		
Vicat Softening Point, °C	ASTM D 1525	63
DSC Melting Point, 10°C/min rate, °C	Dow Method	77
Glass Transition Temperature, °C	Dow Method	-46
Tc Peak, °C	Dow Method	60

(1) These are typical properties only and are not to be regarded as sales specifications.

(2) Compression molded

(3) 508 mm/min

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