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:

- EU, No 10/2011
- Japan Hygienic Olefin and Styrene Plastics Association
- 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/cm³	0.908	g/cm³	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 [1] (Compression Molded)	1390	psi	9.60	MPa	ASTM D638
Tensile Strength [1] (Break, Compression Molded)	4050	psi	27.9	MPa	ASTM D638
Tensile Elongation [1]					ASTM D638
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 [2]	589	lbf/in	103	kN/m	ASTM D624
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	-25.6	°F	-32.0	°C	Dow Method
Vicat Softening Temperature	207	°F	97.0	°C	ASTM D1525
Melting Temperature (DSC) [3]	219	°F	104	°C	Dow Method
Peak Crystallization Temperature (DSC)	194	°F	90.0	°C	Dow Method

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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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