Technical Information

ENGAGE™ 8401
Polyolefin Elastomer

Overview

ENGAGE™ 8401 Polyolefin Elastomer is an ethylene-octene copolymer that offers excellent performance in durable, flexible injection molded industrial and consumer goods.

ENGAGE 8401 provides high clarity in products requiring visual inspection and allows the use of hot runner molds to enhance production efficiency. In addition, its low density can help control resin and production costs, while reducing the weight of end products.

Main Characteristics:

- Pellet form
- Excellent flow characteristics
- High clarity
- Reduced part weight

Applications:

- Injection molded industrial and consumer durable goods
- Impact modification

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.885	g/cm³	0.885	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	30	g/10 min	30	g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	2	MU	2	MU	ASTM D1646
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus - 100% Secant [1] (Compression Molded)	580	psi	4.00	MPa	ASTM D638
Tensile Strength [1] (Break, Compression Molded)	1230	psi	8.50	MPa	ASTM D638
Tensile Elongation [1]					ASTM D638
Break, Compression Molded	940	%	940	%	
Flexural Modulus					ASTM D790
1% Secant : Compression Molded	4450	psi	30.7	MPa	
2% Secant : Compression Molded	4440	psi	30.6	MPa	
Elastomers	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tear Strength [2]	321	lbf/in	56.2	kN/m	ASTM D624
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Durometer Hardness					ASTM D2240
Shore A, 1 sec, Compression Molded	84		84		
Shore D, 1 sec, Compression Molded	26		26		
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Glass Transition Temperature	-52.6	°F	-47.0	°C	Dow Method
Vicat Softening Temperature	120	°F	49.0	°C	ASTM D1525
Melting Temperature (DSC) [3]	176	°F	80.0	°C	Dow Method
Peak Crystallization Temperature (DSC)	138	°F	59.0	°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