ENGAGE™ 8411

Polyolefin Elastomer

The Dow Chemical Company

Message:

ENGAGE™ 8411 Polyolefin Elastomer is an ethylene-octene elastomer that offers excellent performance in durable injection molded industrial and consumer goods and compression molded gaskets.
ENGAGE 8411 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. ENGAGE 8411 also provides good impact properties in blends with polypropylene (PP) and polyethylene (PE), especially in applications like automotive thermoplastic olefins (TPOs), requiring high melt flow modifiers.
Main Characteristics:
Pellet form
High clarity
Low density
Improved impact in polypropylene and polyethylene
Reduced part weight
Applications:
Automotive Thermoplastic Olefins (TPO)
Injection molding
Industrial and consumer goods
Compression molded gaskets
Complies with:
EU, No 10/2011
US. FDA FCN 424
Consult the regulations for complete details.

General Information			
Agency Ratings	EU No 10/2011 FDA FCN 424		
Forms	Pellets		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	0.880	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	18	g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 121°C)	3	MU	ASTM D1646
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Compression Molded	81		
Shore D, 1 sec, Compression Molded	27		
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus - 100% Secant [1] (Compression Molded)	3.30	MPa	ASTM D638
Tensile Strength [2] (Break, Compression Molded)	7.30	MPa	ASTM D638
Tensile Elongation [3] (Break, Compression Molded)	1000	%	ASTM D638
Flexural Modulus			ASTM D790

1% Secant : Compression Molded	19.5	MPa	
2% Secant : Compression Molded	20.5	MPa	
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tear Strength [4]	47.5	kN/m	ASTM D624
Thermal	**Nominal Value**	**Unit**	**Test Method**
Glass Transition Temperature	-50.0	°C	Internal Method
Vicat Softening Temperature	45.0	°C	ASTM D1525
Melting Temperature (DSC) [5]	76.0	°C	Internal Method
Peak Crystallization Temperature (DSC)	54.0	°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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