ENGAGE™ 11547
Polyolefin Elastomer

Overview
ENGAGE™ 11547 is a polyolefin elastomer offering high flow and excellent rubber loading efficiency as superior impact modifier in thermoplastic polyolefin (TPO) compounds. Its improved toughening capability compared to other commercially available polyolefin elastomers allows for greater ease in optimizing elastomer levels to meet impact requirements for global automotive specifications. TPO formulations containing ENGAGE 11547 combine very good processing behavior with an excellent stiffness/toughness balance for automotive parts, such as bumper fascia. The design of the ENGAGE 11547 polyolefin elastomer enables shorter injection molding cycle time for the TPO compound. Its design characteristics contribute to morphology control and improved temperature resistance for final parts.

Main Characteristics:
• High rubber loading efficiency for optimum cost/performance balance
• Improved toughness for better stiffness/toughness balance
• Very good flow characteristics
• High crystallization temperature for short cycle time
• High melting point for improved temperature resistance
• Pellet form with partitioning agent for ease of handling

Applications:
• Impact Modification of TPO
• Injection molded polyolefin compounds

Additive
• Antiblock: No
• Slip: No
• Processing Aid: No

<table>
<thead>
<tr>
<th>Physical</th>
<th>Nominal Value (English)</th>
<th>Nominal Value (SI)</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>0.866 g/cm³</td>
<td>0.866 g/cm³</td>
<td>ASTM D792</td>
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<tr>
<td>Melt Index (190°C/2.16 kg)</td>
<td>5.0 g/10 min</td>
<td>5.0 g/10 min</td>
<td>ASTM D1238</td>
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</tbody>
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<table>
<thead>
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<th>Mechanical</th>
<th>Nominal Value (English)</th>
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<tbody>
<tr>
<td>Tensile Modulus - 100% Secant (Compression Molded)</td>
<td>218 psi</td>
<td>1.50 MPa</td>
<td>ASTM D638</td>
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<tr>
<td>Tensile Strength (Break, Compression Molded)</td>
<td>421 psi</td>
<td>2.90 MPa</td>
<td>ASTM D638</td>
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<tr>
<td>Tensile Elongation</td>
<td></td>
<td></td>
<td>ASTM D638</td>
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<tr>
<td>Break, Compression Molded</td>
<td>1200 %</td>
<td>1200 %</td>
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<table>
<thead>
<tr>
<th>Elastomers</th>
<th>Nominal Value (English)</th>
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<tbody>
<tr>
<td>Tear Strength</td>
<td>126 lbf/in</td>
<td>22.0 kN/m</td>
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<thead>
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<th>Hardness</th>
<th>Nominal Value (English)</th>
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<tr>
<td>Durometer Hardness</td>
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<td></td>
<td>ASTM D2240</td>
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<tr>
<td>Shore A, Compression Molded</td>
<td>60</td>
<td>60</td>
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<table>
<thead>
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<th>Thermal</th>
<th>Nominal Value (English)</th>
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<tr>
<td>Glass Transition Temperature</td>
<td>-79.6 °F</td>
<td>-62.0 °C</td>
<td>Dow Method</td>
</tr>
<tr>
<td>Melting Temperature (DSC)</td>
<td>246 °F</td>
<td>119 °C</td>
<td>Dow Method</td>
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</tbody>
</table>

Notes
These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.
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