

# Santoprene™ 291-60B150

## Thermoplastic Vulcanizate

### Product Description

A colorable, specialty thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is especially formulated to bond to PC, ABS, PC/ABS, ASA and PMMA for applications where hard/soft combinations are required. This grade of Santoprene TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding or extrusion. It is recyclable within the manufacturing stream.

### Key Features

- Designed for excellent adhesion to PC, ABS, PC/ABS, ASA and PMMA (cold insert or 2K [two-shot] molding).
- Broad processing window in injection molding.
- Recommended for applications requiring superior part surface appearance.

### General

Availability <sup>1</sup>	<ul style="list-style-type: none"> <li>▪ Africa &amp; Middle East</li> <li>▪ Asia Pacific</li> </ul>	<ul style="list-style-type: none"> <li>▪ Europe</li> <li>▪ Latin America</li> </ul>	<ul style="list-style-type: none"> <li>▪ North America</li> </ul>
Applications	<ul style="list-style-type: none"> <li>▪ Automotive - Plugs, Bumpers, Grommets, Clips</li> <li>▪ Consumer - Floor Care</li> <li>▪ Consumer - Kitchen Tools</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consumer - Power Tools</li> <li>▪ Consumer - Writing Instruments</li> <li>▪ Consumer Applications</li> </ul>	<ul style="list-style-type: none"> <li>▪ Seals and Gaskets</li> <li>▪ Soft Touch Grips</li> </ul>
Uses	<ul style="list-style-type: none"> <li>▪ Appliance Components</li> <li>▪ Appliances</li> <li>▪ Automotive Applications</li> <li>▪ Automotive Under the Hood</li> <li>▪ Bonding</li> <li>▪ Cell Phones</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consumer Applications</li> <li>▪ Eyeglass Frames</li> <li>▪ Flexible Grips</li> <li>▪ Kitchenware</li> <li>▪ Living Hinges</li> <li>▪ Seals</li> </ul>	<ul style="list-style-type: none"> <li>▪ Sporting Goods</li> <li>▪ Strain Reliefs</li> <li>▪ Tie-Layer</li> <li>▪ White Goods &amp; Small Appliances</li> </ul>
RoHS Compliance	<ul style="list-style-type: none"> <li>▪ RoHS Compliant</li> </ul>		
Color	<ul style="list-style-type: none"> <li>▪ Natural Color</li> </ul>		
Form(s)	<ul style="list-style-type: none"> <li>▪ Pellets</li> </ul>		
Processing Method	<ul style="list-style-type: none"> <li>▪ Coextrusion</li> </ul>	<ul style="list-style-type: none"> <li>▪ Injection Molding</li> </ul>	<ul style="list-style-type: none"> <li>▪ Multi Injection Molding</li> </ul>
Revision Date	<ul style="list-style-type: none"> <li>▪ 06/20/2014</li> </ul>		

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Density / Specific Gravity	1.06	1.06	ASTM D792
Density	1.06 g/cm <sup>3</sup>	1.06 g/cm <sup>3</sup>	ISO 1183

  

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Shore Hardness			ISO 868
Shore A, 15 sec, 73°F (23°C)	65	65	

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Elastomers	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Stress at 100% - Across Flow (73°F (23°C))	305 psi	2.10 MPa	ASTM D412
Tensile Stress at 100% - Across Flow (73°F (23°C))	305 psi	2.10 MPa	ISO 37
Tensile Strength at Break - Across Flow (73°F (23°C))	1160 psi	8.00 MPa	ASTM D412
Tensile Stress at Break - Across Flow (73°F (23°C))	1160 psi	8.00 MPa	ISO 37
Elongation at Break - Across Flow (73°F (23°C))	540 %	540 %	ASTM D412
Tensile Strain at Break - Across Flow (73°F (23°C))	540 %	540 %	ISO 37
Tear Strength - Across Flow (73°F (23°C), Die C)	160 lbf/in	28.0 kN/m	ASTM D624
Tear Strength - Across Flow (73°F (23°C), Method Bb, Angle (Nicked))	160 lbf/in	28 kN/m	ISO 34-1
Compression Set (73°F (23°C), 22 hr, Type 1)	34 %	34 %	ASTM D395B
158°F (70°C), 22 hr, Type 1	62 %	62 %	
Compression Set (73°F (23°C), 22 hr, Type A)	34 %	34 %	ISO 815
158°F (70°C), 22 hr, Type A	62 %	62 %	

### Injection Notes

Santoprene TPV is incompatible with acetal and PVC. Please see Quick Processing Reference for 291-XXB150 for further information.

Aging	Typical Value (English)	Typical Value (SI)	Test Based On
Change in Tensile Strength in Air (212°F (100°C), 168 hr)	0.0 %	0.0 %	ASTM D573
Change in Tensile Strength in Air (212°F (100°C), 168 hr)	0.0 %	0.0 %	ISO 188
Change in Ultimate Elongation in Air (212°F (100°C), 168 hr)	-11 %	-11 %	ASTM D573
Change in Tensile Strain at Break in Air (212°F (100°C), 168 hr)	-11 %	-11 %	ISO 188
Change in Durometer Hardness in Air (Shore A, 212°F (100°C), 672 hr)	-2.0	-2.0	ASTM D573
Change in Shore Hardness in Air (Shore A, 212°F (100°C), 672 hr)	-2.0	-2.0	ISO 188
Change in Mass in Air (212°F (100°C), 168 hr)	-1.1 %	-1.1 %	ASTM D573
Change in Mass in Air (212°F (100°C), 168 hr)	-1.1 %	-1.1 %	ISO 188
Change in Volume in Air (212°F (100°C), 168 hr)	-1.2 %	-1.2 %	ASTM D573
Change in Volume in Air (212°F (100°C), 168 hr)	-1.2 %	-1.2 %	ISO 188

### Additional Information

Where applicable, test results based on fan gated, injection molded plaques.

Tensile strength, elongation and tensile stress are measured across the flow direction - ISO type 1, ASTM die C.

Compression set at 25% deflection.

All products purchased directly from an ExxonMobil affiliate in Europe are REACH compliant. For products not imported into Europe by ExxonMobil, customers should assess their legal responsibilities under REACH.

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### Legal Statement

This product, including the product name, shall not be used or tested in any medical application without the prior written acknowledgement of ExxonMobil Chemical as to the intended use. For detailed Product Stewardship information, please contact Customer Service.

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### Processing Statement

Desiccant drying for 3 hours at 80°C (180°F) is recommended. Because of its inherent nature to bond, this material may, on occasion, agglomerate from shipping and storage. See Quick Processing Reference on 291-XXB150 and Tips from Technology - Guidelines for Storage and Handling of Santoprene TPV Bonding Grades.

### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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