

# Santoprene™ 251-85W232

## Thermoplastic Vulcanizate

### Product Description

A hard, colorable, flame retardant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material has good fluid resistance and contains non-ether brominated flame retardants. It does not contain metal deactivators. This grade of Santoprene TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding, extrusion, blow molding, thermoforming or vacuum forming. It is polyolefin based and recyclable within the manufacturing stream.

### Key Features

- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component; file #QMTT2.E86313, Polymeric Materials for Use in Wire, Cable and Flexible Lighting Products - Component.
- Recommended for applications requiring a flame retardant material - UL 94 Vertical Flame rated.
- Recommended for applications requiring excellent flex fatigue resistance.
- Recommended for applications requiring excellent ozone resistance.

### General

Applications	<ul style="list-style-type: none"> <li>Automotive - Flame Retardant Connectors and Seals</li> <li>Electrical - Flame Retardant Connectors and Seals</li> <li>Electrical - Flame Retardant Wire and Cable Jacket</li> </ul>
Uses	<ul style="list-style-type: none"> <li>Automotive Applications</li> <li>Cable Jacketing</li> <li>Flexible Cord Jacketing</li> <li>Wire &amp; Cable Applications</li> </ul>
Agency Ratings	<ul style="list-style-type: none"> <li>UL QMFZ2</li> <li>UL QMFZ8</li> <li>UL QMTT2</li> </ul>
RoHS Compliance	<ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>
UL File Number	<ul style="list-style-type: none"> <li>E86313</li> <li>E80017</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>Blow Molding</li> <li>Coextrusion</li> <li>Extrusion</li> <li>Extrusion Blow Molding</li> <li>Injection Blow Molding</li> <li>Injection Molding</li> <li>Multi Injection Molding</li> <li>Profile Extrusion</li> <li>Sheet Extrusion</li> <li>Thermoforming</li> <li>Vacuum Forming</li> </ul>

### Physical

	Typical Value (English)	Typical Value (SI)	Test Based On
Density / Specific Gravity	1.15	1.15	ASTM D792
Density	1.15 g/cm <sup>3</sup>	1.15 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)	89	89	

### Elastomers

	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Stress at 100% - Across Flow (73°F (23°C))	653 psi	4.50 MPa	ASTM D412
Tensile Stress at 100% - Across Flow (73°F (23°C))	653 psi	4.50 MPa	ISO 37
Tensile Strength at Break - Across Flow (73°F (23°C))	1540 psi	10.6 MPa	ASTM D412
Tensile Stress at Break - Across Flow (73°F (23°C))	1540 psi	10.6 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

### Injection Notes

Santoprene™ TPV is incompatible with acetal and PVC. For more information regarding processing and mold design, please consult our Injection Molding Guide.



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Extrusion Notes

Santoprene™ TPV is incompatible with acetal and PVC. For more information regarding processing and die design, please consult our Extrusion Molding Guide.

Flammability	Typical Value (English)	Typical Value (SI)	Test Based On
Flame Rating (0.030 in (0.75 mm))	V-2	V-2	UL 94

