

# Santoprene™ 123-50W175

## Thermoplastic Vulcanizate

### Product Description

A hard, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance for use in thin wall applications. 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

- Recommended for applications requiring excellent flex fatigue resistance.
- Recommended for applications requiring excellent ozone resistance.
- Designed for improved UV resistance.

### General

Applications	▪ Automotive - Seals and Gaskets ▪ Automotive - Weather Seals		
Uses	▪ Automotive Applications	▪ Automotive Exterior Trim	▪ Outdoor Applications
RoHS Compliance	▪ RoHS Compliant		
Automotive Specifications	▪ CHRYSLER MS-AR-100 HGV	▪ GM GMW15812, Type 10E	
Color	▪ Black		
Form(s)	▪ Pellets		
Processing Method	▪ Blow Molding ▪ Coextrusion ▪ Extrusion ▪ Extrusion Blow Molding	▪ Injection Blow Molding ▪ Injection Molding ▪ Multi Injection Molding ▪ Profile Extrusion	▪ Sheet Extrusion ▪ Thermoforming ▪ Vacuum Forming

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Density / Specific Gravity	0.950	0.950	ASTM D792
Density	0.946 g/cm <sup>3</sup>	0.946 g/cm <sup>3</sup>	ISO 1183

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Shore Hardness			ISO 868
Shore D, 15 sec, 73°F (23°C)	51	51	

Mechanical	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Stress at Yield - Across Flow (73°F (23°C))	1840 psi	12.7 MPa	ISO 527-2
Tensile Strain at Yield - Across Flow (73°F (23°C))	27 %	27 %	ISO 527-2

Elastomers	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield - Across Flow (73°F (23°C))	1840 psi	12.7 MPa	ASTM D412
Elongation at Yield - Across Flow (73°F (23°C))	27 %	27 %	ASTM D412

### Injection Notes

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

### 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
Burning Rate	1.5 in/min	39 mm/min	ISO 3795

