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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

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
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
Revision Date	▪ 01/01/2018		

Physical	Typical Value (English)		Typical Value (SI)		Test Based On
Density / Specific Gravity	0.950		0.950		ASTM D792
Density	0.946	g/cm³	0.946	g/cm³	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

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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.

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.

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. Santoprene™ TPV has a wide temperature processing window from 175 to 230°C (350 to 450°F) and is incompatible with acetal and PVC. For more information, please consult our Safety Data Sheet, Injection Molding Guide and Extrusion Guide.

Notes

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

[1] 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

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