

Santoprene™ 121-70B230

Thermoplastic Vulcanizate

Product Description

A soft, black thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is specially formulated to bond to sulfur or peroxide-cured thermoset EPDM rubber for corner molding, end caps and special fixation applications, and for COF enhancement. This grade of Santoprene TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- Specially formulated to replace thermoset EPDM rubber in automotive glass run channel corner molding applications.
- Designed for shorter processing time compared to thermoset EPDM rubber.
- Adheres to vulcanized EPDM rubber over wide range of temperatures.
- Adheres to TPV over wide range of temperatures.
- Enhanced COF properties.
- Good UV resistance.
- Low fogging.
- Paint stain resistant.

General

Availability ¹	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
Applications	▪ Automotive - Weather Seals		
Uses	▪ Automotive Applications	▪ Automotive Exterior Trim	▪ Outdoor Applications
RoHS Compliance	▪ RoHS Compliant		
Automotive Specifications	▪ GM GMW15825 Type 5		
Color	▪ Black		
Form(s)	▪ Pellets		
Processing Method	▪ Injection Molding	▪ Multi Injection Molding	
Revision Date	▪ 10/08/2014		

Physical

	Typical Value (English)	Typical Value (SI)	Test Based On
Density / Specific Gravity	0.920	0.920	ASTM D792
Density	0.920 g/cm ³	0.920 g/cm ³	ISO 1183

Hardness

	Typical Value (English)	Typical Value (SI)	Test Based On
Shore Hardness			ISO 868
Shore A, 15 sec, 73°F (23°C)	74	74	

Elastomers

	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Stress at 100% - Across Flow (73°F (23°C))	377 psi	2.60 MPa	ASTM D412
Tensile Stress at 100% - Across Flow (73°F (23°C))	377 psi	2.60 MPa	ISO 37
Tensile Strength at Break - Across Flow (73°F (23°C))	943 psi	6.50 MPa	ASTM D412
Tensile Stress at Break - Across Flow (73°F (23°C))	943 psi	6.50 MPa	ISO 37
Elongation at Break - Across Flow (73°F (23°C))	470 %	470 %	ASTM D412
Tensile Strain at Break - Across Flow (73°F (23°C))	470 %	470 %	ISO 37
Compression Set			ASTM D395B
158°F (70°C), 22 hr, Type 1	44 %	44 %	
Compression Set			ISO 815
158°F (70°C), 22 hr, Type A	44 %	44 %	

Injection Notes

Santoprene TPV is incompatible with acetal and PVC. For more information regarding processing and mold design, please consult our Injection Molding Guide and Technical Literature (TL) on "Injection Molding of Corners and End Caps to EPDM Weatherseals".

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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.

This product may be manufactured by a third party under contract with Exxon Mobil Corporation or one of its affiliates, pursuant to a quality management system which complies with the requirements of ISO 9001:2015.

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 65°C (150°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 Technical Literature (TL) on "Injection Molding of Corners and End Caps to EPDM Weatherseals".

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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