

# Santoprene™ 121-70B230

## Thermoplastic Vulcanizate

Product Description	Key Features
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 completely recyclable.	<ul style="list-style-type: none"> <li>• Specially formulated to replace thermoset EPDM rubber in automotive glass run channel corner molding applications.</li> <li>• Designed for shorter processing time compared to thermoset EPDM rubber.</li> <li>• Adheres to vulcanized EPDM rubber over wide range of temperatures.</li> <li>• Adheres to TPV over wide range of temperatures.</li> <li>• Enhanced COF properties.</li> <li>• Good UV resistance.</li> <li>• Low fogging.</li> <li>• Paint stain resistant.</li> <li>• EU Directive 2002/95/EC (RoHS) compliant.</li> </ul>

### 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> <li>• South America</li> </ul>
Applications	<ul style="list-style-type: none"> <li>• Automotive - Weather Seals</li> </ul>		
Uses	<ul style="list-style-type: none"> <li>• Automotive Applications</li> </ul>	<ul style="list-style-type: none"> <li>• Automotive Exterior Trim</li> </ul>	
Agency Ratings	<ul style="list-style-type: none"> <li>• EU 2003/11/EC</li> </ul>		
RoHS Compliance	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> </ul>		
Automotive Specifications	<ul style="list-style-type: none"> <li>• GM GMP.E/P.161 (pending)</li> </ul>		
Color	<ul style="list-style-type: none"> <li>• Black</li> </ul>		
Form(s)	<ul style="list-style-type: none"> <li>• Pellets</li> </ul>		
Processing Method	<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>• 07/12/2007</li> </ul>		

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Specific Gravity	0.920	0.920	ASTM D792
Density	0.920 g/cm <sup>3</sup>	0.920 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), 0.0787 in (2.00 mm)	71	71	

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

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## ExxonMobil Chemical Santoprene™ 121-70B230 Thermoplastic Vulcanizate

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))	870 psi	6.00 MPa	ASTM D412
Tensile Stress at Break - Across Flow (73°F (23°C))	870 psi	6.00 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), 22.0 hr, Type 1	44 %	44 %	
Compression Set			ISO 815
158°F (70°C), 22.0 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".

### Additional Information

Values are for injection molded plaques, fan-gated, 102.0 mm x 152.0 mm x 2.0 mm (4.000" x 6.000" x 0.080").

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 is 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 9001:2000.

### Legal Statement

For detailed Product Stewardship information, please contact Customer Service.

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.

### 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 Material Safety Data Sheet, Injection Molding Guide and Technical Literature (TL) on "Injection Molding of Corners and End Caps to EPDM Weatherseals".

### Notes

<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.

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## ExxonMobil Chemical Santoprene™ 121-70B230 Thermoplastic Vulcanizate

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