

# Santoprene™ 121-65M300

## Thermoplastic Vulcanizate

Product Description	Key Features
A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is designed for automotive interior applications requiring low fogging and good appearance. 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>Designed for fast, easy injection molding, especially for complex part geometries.</li> <li>Used in sealing applications.</li> <li>Recommended for applications requiring superior part surface appearance.</li> <li>Designed to be injected at lower molding temperatures or at lower injection pressures.</li> <li>Designed for automotive interior applications requiring low fogging and low odor.</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 - Interior Mat</li> </ul>	<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>	<ul style="list-style-type: none"> <li>Automotive Interior 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>CHRYSLER MS-AR27 Type A</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>03/21/2006</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)	65	65	

Elastomers	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Stress at 100% - Across Flow (73°F (23°C))	334 psi	2.30 MPa	ASTM D412
Tensile Stress at 100% - Across Flow (73°F (23°C))	334 psi	2.30 MPa	ISO 37
Tensile Strength at Break - Across Flow (73°F (23°C))	957 psi	6.60 MPa	ASTM D412
Tensile Stress at Break - Across Flow (73°F (23°C))	957 psi	6.60 MPa	ISO 37
Elongation at Break - Across Flow (73°F (23°C))	490 %	490 %	ASTM D412
Tensile Strain at Break - Across Flow (73°F (23°C))	490 %	490 %	ISO 37

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

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**ExxonMobil Chemical Santoprene™ 121-65M300  
Thermoplastic Vulcanizate**

<b>Elastomers</b>	<b>Typical Value (English)</b>	<b>Typical Value (SI)</b>	<b>Test Based On</b>
Compression Set			ASTM D395B
158°F (70°C), 22.0 hr, Type 1	41 %	41 %	
212°F (100°C), 70.0 hr, Type 1	53 %	53 %	
Compression Set			ISO 815
158°F (70°C), 22.0 hr, Type A	41 %	41 %	
212°F (100°C), 70.0 hr, Type A	53 %	53 %	

<b>Thermal</b>	<b>Typical Value (English)</b>	<b>Typical Value (SI)</b>	<b>Test Based On</b>
Brittleness Temperature	-62 °F	-52 °C	ASTM D746
Brittleness Temperature	-62 °F	-52 °C	ISO 812

**Injection Notes**

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

<b>Aging</b>	<b>Typical Value (English)</b>	<b>Typical Value (SI)</b>	<b>Test Based On</b>
Change in Tensile Strength in Air			ASTM D573
212°F (100°C), 1008 hr	-3.0 %	-3.0 %	
Change in Tensile Strength in Air			ISO 188
212°F (100°C), 1008 hr	-3.0 %	-3.0 %	
Change in Ultimate Elongation in Air			ASTM D573
212°F (100°C), 1008 hr	-10 %	-10 %	
Change in Tensile Strain at Break in Air			ISO 188
212°F (100°C), 1008 hr	-10 %	-10 %	
Change in Durometer Hardness in Air			ASTM D573
Shore A, 212°F (100°C), 1008 hr	2.0	2.0	
Change in Shore Hardness in Air			ISO 188
Shore A, 212°F (100°C), 1008 hr	2.0	2.0	

**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.

**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 and Injection Molding Guide.

**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™ 121-65M300 Thermoplastic Vulcanizate

For additional technical, sales and order assistance:

EXXONMOBIL CHEMICAL COMPANY  
388 S. Main Street  
Akron, OH 44311-1065

### AnswerPerson(SM)

U.S.:	800.305.8070 option 2
North America:	330.849.5272
Europe:	32.2.706.3511
Japan:	81-44-288-9920
PRC/Taiwan/Malaysia/New Zealand:	00 800 3996 6662
Hong Kong/S. Korea-KT/Singapore/Thailand:	001 800 3996 6662
S. Korea-Dacom:	002 800 3996 6662
Australia:	0011 800 3996 6662
India:	000 8008521286
Indonesia:	001 8038527887

[www.santoprene.com/answer](http://www.santoprene.com/answer)

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