

Santoprene™ 8291-55PA

Thermoplastic Vulcanizate

Product Description	Key Features
A soft, colorable, specialty thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is especially formulated to bond to PA-6 and blends thereof for applications where hard/soft combinations are required. This grade of Santoprene TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding or extrusion. It is polyolefin based and completely recyclable.	<ul style="list-style-type: none"> Designed for soft touch applications. Designed for excellent adhesion onto nylon-6 (insert or 2K [two-shot] molding) and nylon 6,6 (2K [two-shot] molding). Adhesion values can vary according to type of nylon used, tool design and processing conditions. UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component. EU Directive 2002/95/EC (RoHS) compliant.

General

Availability ¹	<ul style="list-style-type: none"> Africa & Middle East Asia Pacific 	<ul style="list-style-type: none"> Europe Latin America 	<ul style="list-style-type: none"> North America South America
Applications	<ul style="list-style-type: none"> Automotive - Interior Automotive - Plugs, Bumpers, Grommets, Clips Automotive - Seals and Gaskets 	<ul style="list-style-type: none"> Consumer - Electronics Consumer - Kitchen Tools Consumer - Power Tools 	<ul style="list-style-type: none"> Consumer Applications Seals and Gaskets Soft Touch Grips
Uses	<ul style="list-style-type: none"> Appliance Components Appliances Automotive Applications Automotive Under the Hood Bonding Cell Phones 	<ul style="list-style-type: none"> Consumer Applications Cookware Handles Eyeglass Frames Flexible Grips Kitchenware Living Hinges 	<ul style="list-style-type: none"> Seals Sporting Goods Strain Reliefs Tie-Layer White Goods & Small Appliances
Agency Ratings	<ul style="list-style-type: none"> EU 2003/11/EC 	<ul style="list-style-type: none"> UL QMFZ2 	<ul style="list-style-type: none"> UL QMFZ8
RoHS Compliance	<ul style="list-style-type: none"> RoHS Compliant 		
Color	<ul style="list-style-type: none"> Natural Color 		
Form(s)	<ul style="list-style-type: none"> Pellets 		
Processing Method	<ul style="list-style-type: none"> Coextrusion 	<ul style="list-style-type: none"> Injection Molding 	<ul style="list-style-type: none"> Multi Injection Molding
Revision Date	<ul style="list-style-type: none"> 12/10/2008 		

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Specific Gravity	0.930	0.930	ASTM D792
Density	0.930 g/cm ³	0.930 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), 0.0787 in (2.00 mm)	55	55	

Elastomers	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Stress at 100% - Across Flow (73°F (23°C))	276 psi	1.90 MPa	ASTM D412
Tensile Stress at 100% - Across Flow (73°F (23°C))	276 psi	1.90 MPa	ISO 37
Tensile Strength at Break - Across Flow (73°F (23°C))	450 psi	3.10 MPa	ASTM D412
Tensile Stress at Break - Across Flow (73°F (23°C))	450 psi	3.10 MPa	ISO 37

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

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**ExxonMobil Chemical Santoprene™ 8291-55PA
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Elastomers	Typical Value (English)	Typical Value (SI)	Test Based On
Elongation at Break - Across Flow (73°F (23°C))	360 %	360 %	ASTM D412
Tensile Strain at Break - Across Flow (73°F (23°C))	360 %	360 %	ISO 37
Tear Strength - Across Flow (73°F (23°C), Die C)	62.8 lbf/in	11.0 kN/m	ASTM D624
Tear Strength - Across Flow 73°F (23°C), Method Bb, Angle (Nicked)	63 lbf/in	11 kN/m	ISO 34-1

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 Santoprene TPV PA".

Extrusion Notes

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

Aging	Typical Value (English)	Typical Value (SI)	Test Based On
Change in Tensile Strength in Air 158°F (70°C), 168 hr	5.0 %	5.0 %	ASTM D573
257°F (125°C), 168 hr	-13 %	-13 %	
Change in Tensile Strength in Air 158°F (70°C), 168 hr	5.0 %	5.0 %	ISO 188
257°F (125°C), 168 hr	-13 %	-13 %	
Change in Ultimate Elongation in Air 158°F (70°C), 168 hr	12 %	12 %	ASTM D573
257°F (125°C), 168 hr	-8.0 %	-8.0 %	
Change in Tensile Strain at Break in Air 158°F (70°C), 168 hr	12 %	12 %	ISO 188
257°F (125°C), 168 hr	-8.0 %	-8.0 %	
Change in Durometer Hardness in Air Shore A, 158°F (70°C), 168 hr	-1.0	-1.0	ASTM D573
Shore A, 257°F (125°C), 168 hr	0.0	0.0	
Change in Shore Hardness in Air Shore A, 158°F (70°C), 168 hr	-1.0	-1.0	ISO 188
Shore A, 257°F (125°C), 168 hr	0.0	0.0	

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.

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. Two-shot molding offers superior adhesion to PA-6 and blends thereof. Insert molding can be used with a preheated substrate under certain conditions. Santoprene TPV is incompatible with acetal and PVC. For more

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information, please consult our Material Safety Data Sheet, Injection Molding Guide, Extrusion Guide and Technical Literature (TL) on "Injection Molding of Santoprene TPV PA".

Notes

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:

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