

Santoprene™ 8211-55B100

Thermoplastic Vulcanizate

Product Description	Key Features
A soft, colorable, specialty, non-hygroscopic thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is especially formulated to bond to ABS, PS, PC, PMMA, ASA, PET and PPO/PS blends 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 excellent adhesion onto ABS, PS, PC, PMMA and ASA (cold insert or 2K [two-shot] molding). Recommended for applications requiring superior part surface appearance. Designed for soft touch applications. UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component. Adhesion values can vary according to type of ABS, PS, PC, PMMA, ASA or blends thereof, tool design and processing conditions. EU and China 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 - Grips Automotive - HVAC Flapper Door Seals Automotive - Interior Consumer - Electronics 	<ul style="list-style-type: none"> Consumer - Floor Care Consumer - Kitchen Tools Consumer - Power Tools Consumer - Writing Instruments 	<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 Eyeglass Frames Flexible Grips Kitchenware Living Hinges Seals 	<ul style="list-style-type: none"> Sporting Goods Strain Reliefs Tie-Layer White Goods & Small Appliances
Agency Ratings	<ul style="list-style-type: none"> EU Annex XVII of Regulation (EC) No 1907/2006 	<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 		
UL File Number	<ul style="list-style-type: none"> E80017 		
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"> 04/08/2011 		

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Specific Gravity	1.04	1.04	ASTM D792
Density	1.04 g/cm ³	1.04 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)	53	53	

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

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Elastomers	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Stress at 100% - Across Flow (73°F (23°C))	145 psi	1.00 MPa	ASTM D412
Tensile Stress at 100% - Across Flow (73°F (23°C))	145 psi	1.00 MPa	ISO 37
Tensile Strength at Break - Across Flow (73°F (23°C))	595 psi	4.10 MPa	ASTM D412
Tensile Stress at Break - Across Flow (73°F (23°C))	595 psi	4.10 MPa	ISO 37
Elongation at Break - Across Flow (73°F (23°C))	600 %	600 %	ASTM D412
Tensile Strain at Break - Across Flow (73°F (23°C))	600 %	600 %	ISO 37
Compression Set			ASTM D395B
257°F (125°C), 70.0 hr, Type 1	55 %	55 %	
Compression Set			ISO 815
257°F (125°C), 70.0 hr, Type A	55 %	55 %	

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Brittleness Temperature	-47 °F	-44 °C	ASTM D746
Brittleness Temperature	-47 °F	-44 °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, brochure on "B100, ABS, PC & PS Bondable TPV" and Technical Literature (TL) on "Injection Molding of Santoprene TPV 8211-55B100".

Extrusion Notes

Santoprene TPV is incompatible with acetal and PVC. For more information regarding processing and mold design, please consult our Extrusion Guide and brochure on "B100, ABS, PC & PS Bondable TPV".

Aging	Typical Value (English)	Typical Value (SI)	Test Based On
Change in Tensile Strength in Air			ASTM D573
212°F (100°C), 168 hr	-28 %	-28 %	
257°F (125°C), 168 hr	-61 %	-61 %	
Change in Tensile Strength in Air			ISO 188
212°F (100°C), 168 hr	-28 %	-28 %	
257°F (125°C), 168 hr	-61 %	-61 %	
Change in Ultimate Elongation in Air			ASTM D573
212°F (100°C), 168 hr	-14 %	-14 %	
257°F (125°C), 168 hr	-70 %	-70 %	
Change in Tensile Strain at Break in Air			ISO 188
212°F (100°C), 168 hr	-14 %	-14 %	
257°F (125°C), 168 hr	-70 %	-70 %	
Change in Durometer Hardness in Air			ASTM D573
Shore A, 212°F (100°C), 168 hr	-4.0	-4.0	
Shore A, 257°F (125°C), 168 hr	8.0	8.0	
Change in Shore Hardness in Air			ISO 188
Shore A, 212°F (100°C), 168 hr	-4.0	-4.0	
Shore A, 257°F (125°C), 168 hr	8.0	8.0	

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Flammability	Typical Value (English)	Typical Value (SI)	Test Based On
Flame Rating			UL 94
0.0433 in (1.10 mm)	HB	HB	
0.114 in (2.90 mm)	HB	HB	

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 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 9001:2008.

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) can be performed if desired. For two-shot injection molding, recommended melt temperature is 210 to 230°C (410 to 445°F) with mold temperatures of 30 to 50°C (90 to 125°F). For insert injection molding, recommended melt temperature is 230 to 250°C (445 to 485°F) with mold temperatures of 25 to 50°C (75 to 125°F). Because of its inherent nature to bond, this material may, on occasion, agglomerate from shipping and storage. Santoprene TPV is incompatible with acetal and PVC. For more information, please consult our Material Safety Data Sheet, Injection Molding Guide, Extrusion Guide, brochure on "B100, ABS, PC & PS Bondable TPV", Technical Literature (TL) on "Injection Molding of Santoprene TPV 8211-55B100" and TechNote on "Guidelines for Storage and Handling of Santoprene TPV Bonding Grades".

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.

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