

Santoprene™ 8211-55B100

Thermoplastic Vulcanizate

Product Description

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 recyclable within the manufacturing stream.

Key Features

- 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.

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
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"> UL QMFZ2 	<ul style="list-style-type: none"> UL QMFZ8 	
RoHS Compliance	<ul style="list-style-type: none"> RoHS Compliant 		
Automotive Specifications	<ul style="list-style-type: none"> GM GMW15702-250006 		
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"> 06/20/2014 		

Physical

	Typical Value (English)	Typical Value (SI)	Test Based On
Density / 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)	53	53	

Elastomers

	Typical Value (English)	Typical Value (SI)	Test Based On
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 hr, Type 1	55 %	55 %	
Compression Set			ISO 815
257°F (125°C), 70 hr, Type A	55 %	55 %	

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".

Santoprene™ 8211-55B100

Thermoplastic Vulcanizate

Extrusion Notes

Santoprene TPV is incompatible with acetal and PVC. For more information regarding processing and die 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	
Flammability	Typical Value (English)	Typical Value (SI)	Test Based On
Flame Rating			UL 94
0.04 in (1.1 mm)	HB	HB	
0.11 in (2.9 mm)	HB	HB	

Additional Information

Where applicable, test results based on fan gated, 2.0 mm injection molded plaques. Tensile strength, elongation and tensile stress are measured across the flow direction. Test results are generated by ExxonMobil test methods that may not fully conform to the ASTM and/or ISO methods. Test methods are available upon request. 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

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. For detailed Product Stewardship information, please contact Customer Service.

Processing Statement

Desiccant drying for 3 hours at 70°C (160°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 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 Tips from Technology - Guidelines for Storage and Handling of Santoprene TPV Bonding Grades.

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.

Santoprene™ 8211-55B100
Thermoplastic Vulcanizate

For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

©2021 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Chemical" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

exxonmobilchemical.com