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Santoprene™ 8191-55B100

Thermoplastic Vulcanizate

Product Description

A soft, black, 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

- UL Listed #QMFZ2.E80017 Plastics Components, #QMFZ8.E80017 Plastics Certified for Canada - Components.
- 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.
- Adhesion values can vary according to type of ABS, PS, PC, PMMA, ASA or blends thereof, tool design and processing conditions.

General

Availability [1]	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Applications	• Automotive - Grips • Automotive - HVAC Flapper Door Seals • Automotive - Interior • Consumer - Electronics	• Consumer - Floor Care • Consumer - Kitchen Tools • Consumer - Power Tools • Consumer - Writing Instruments	• Consumer Applications • Seals and Gaskets • Soft Touch Grips
Uses	• Appliance Components • Appliances • Automotive Applications • Automotive Under the Hood • Bonding • Cell Phones	• Consumer Applications • Eyeglass Frames • Flexible Grips • Kitchenware • Living Hinges • Seals	• Sporting Goods • Strain Reliefs • Tie-Layer • White Goods & Small Appliances
RoHS Compliance	• RoHS Compliant		
UL File Number	• E80017		
Color	• Black		
Form(s)	• Pellets		
Processing Method	• Coextrusion	• Injection Molding	• Multi Injection Molding
Revision Date	• 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/cm³	1.04	g/cm³	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".

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Extrusion Notes

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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	
0.12 in (3.0 mm)	HB	HB	

Additional Information

Where applicable, test results based on fan gated, injection molded plaques.

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 9001:2015.

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.

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

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