

Santoprene™ 8000 TPV 8211-55B100
Advanced Elastomer Systems - Thermoplastic Elastomer

Tuesday, September 11, 2007

All values included in this document are for reference purposes only and should not be construed as material specifications. The test methods on this Product Data Sheet indicate the internationally recognized standards upon which the manufacturer's work instructions are based.

General

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 8000 TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding or extrusion. It is polyolefin based and completely recyclable.

General

Material Status	• Commercial: Active	
Availability	• Africa • Asia • Australia • Europe • Latin America	• Middle East • North America • Pacific Rim • South America
Test Standards Available	• ASTM • ISO	
Uses	• Bonding • Consumer Applications • Grips, Flexible	• Overmolding • Tools, Power/Others • Toys
Agency Ratings	• EU 2003/11/EC • RoHS Compliant	• UL QMFZ2 • UL QMFZ8
RoHS Compliance	• RoHS Compliant	
Color	• Natural Color	
Forms	• Pellets	
Processing Method	• Coextrusion • Extrusion • Extrusion, Profile	• Extrusion, Sheet • Injection Molding • Injection Molding, Multi

Physical

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Shore Hardness Shore A, 0.0787 in (2.00 mm)	53	53	ISO 868
Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Density -Specific Gravity	1.04 sp gr 23/23°C	1.04 sp gr 23/23°C	ASTM D792
Density	1.04 sp gr 23/23°C	1.04 sp gr 23/23°C	ISO 1183

Mechanical

Mechanical	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Stress @ 100% Across Flow	150 psi	1.03 MPa	ASTM D412
Tensile Stress at 100% 73 °F (23 °C) - Across Flow	145 psi	1.00 MPa	ISO 37
Tensile Str @ Break Elast 73 °F (23 °C) - Across Flow	590 psi	4.07 MPa	ASTM D412
Tensile Stress at Break 73 °F (23 °C) - Across Flow	595 psi	4.10 MPa	ISO 37
Elongation @ Break Elast Across Flow	600 %	600 %	ASTM D412
Tensile Strain at Break	600 %	600 %	ISO 37
Compression Set 257 °F (125 °C), 70.0 hr	55 %	55 %	ASTM D395
Compression Set 257 °F (125 °C), 70.0 hr	55 %	55 %	ISO 815

Processing

Injection Notes

Santoprene 8000 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 TCD on "Injection Molding of Santoprene TPV 8211-55B100".

Extrusion Notes

Santoprene 8000 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".

Other

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

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. - Compliant to EU Directive 2003/11/EC regarding marketing and use of certain dangerous substances and preparations, specifically pentabromodiphenyl ether or octabromodiphenyl ether. - EU Directive 2002/95/EC (RoHS) compliant.

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). Santoprene 8000 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" and TCD on "Injection Molding of Santoprene TPV 8211-55B100".

Revision Date

07/12/2007

Additional Properties

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 is 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 9001:2000.

For additional technical, sales and order assistance:

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