

SANTOPRENE® 251-80W232

A soft, colorable, flame retardant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material has good fluid resistance and contains non-ether brominated flame retardants. It does not contain metal deactivators. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding, extrusion, blow molding, thermoforming or vacuum forming. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

• UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component; file #QMTT2.E86313, Polymeric Materials for Use in Wire, Cable and Flexible Lighting Products - Component.

- Recommended for applications requiring a flame retardant material UL 94 Vertical Flame rated.
- · Recommended for applications requiring excellent flex fatigue resistance.
- · Recommended for applications requiring excellent ozone resistance.

Typical mechanical properties

Stress at 100% elongation Stress at break Elongation at break Shore A hardness, 15s Compression set at 23°C Compression set at 70°C, 24h		%	ISO 527-1/-2 or ISO 37 ISO 527-1/-2 or ISO 37 ISO 527-1/-2 or ISO 37 ISO 48-4 / ISO 868 ISO 815 ISO 815
Thermal properties			
RTI, electrical, 1.5mm RTI, strength, 1.5mm RTI, strength, 3mm	85	°C °C °C	UL 746B UL 746B UL 746B
Flammability			
Burning Behav. at thickness h Thickness tested UL recognition Oxygen index Hot Wire Ignition, 1.5mm	V-0 3 yes 27 PLC 3		UL 94 UL 94 UL 94 ISO 4589-1/-2 UL 746A
Electrical properties			
Comparative tracking index Arc Resistance Performance Level Category Electric Strength, Short Time, 2mm High Amperage Arc Ignition Category, 1.5 mm High Voltage Arc Tracking Rate	PLC 0	class kV/mm	UL 746A UL 746B ASTM D 149 UL 746A UL 746A



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Other properties			
Density	1240	kg/m³	ISO 1183
Intention			
Injection			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	3	h	
Processing Moisture Content	0.08	%	
Max. regrind level	20	%	
Max. mould temperature	10 - 52	°C	
Vent depth	25	μm	
Back pressure	0.345 - 0.689	MPa	
Injection speed	fast		
Extrusion			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	3	h	

Processing Texts

Processing Notes

Other Approvals

Other Approvals

Desiccant drying for 3 hours at $80 \degree C$ ($180 \degree F$) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to $230 \degree C$ (350 to $450 \degree F$) and is incompatible with acetal and PVC.

OEM	Specification	Additional Information
Stellantis - Chrysler	MS-AR-100 AFN	
VW Group	VW50123	LF3001 NAT, VW EA211_Flame Retar_SOP 04/23

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Page: 2 of 2