

SANTOPRENE[®] 201-87

SANTOPRENE®

A hard, colorable, versatile thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance for use in a wide range of applications. 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.

• Recommended for applications requiring excellent flex fatigue resistance.

· Excellent ozone resistance.

Product information			
Resin Identification	TPV		ISO 1043
Part Marking Code	>TPV<		ISO 11469
Typical mechanical properties			
Tensile stress at 100% elongation, perpendicular	7.1	MPa	ISO 37
Stress at break, perpendicular		MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	580		ISO 527-1/-2 or ISO 37
Brittleness temperature	-54	°C	ISO 974
Brittleness Temperature	-54	°C	ASTM D 746
Shore A hardness, 15s	93		ISO 48-4 / ISO 868
Compression set, 70°C, 24h	36	%	ISO 815
Compression set, 125°C, 70h	44	%	ISO 815
Tear strength, normal	48	kN/m	ISO 34-1
Thermal properties			
RTI, electrical, 1.5mm	100	°C	UL 746B
RTI, electrical, 3.0mm	100		UL 746B
RTI, strength, 1.5mm		°Č	UL 746B
RTI, strength, 3.0mm	95	°C	UL 746B
Specific Application Suitability			
Continuous Upper Temperature Resistance, 1000h	135	°C	SAE J2236
Detergent resistance	f3	0	UL 749
Detergent resistance	f4		UL 2157
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Flammability			
Burning Behav. at 1.5mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Burning Behav. at thickness h		class	IEC 60695-11-10
Thickness tested	1	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Hot Wire Ignition, 1.5mm	PLC 3		UL 746A
Hot Wire Ignition, 3mm	PLC 2	S	UL 746A

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Electrical properties

Relative permittivity, 60Hz Arc Resistance Performance Level Category Electric Strength, Short Time, 2mm High Amperage Arc Ignition Category, 1.5 mm	2.4 PLC 5 32 PLC 0	kV/mm	IEC 62631-2-1 UL 746B ASTM D 149 UL 746A
Physical/Other properties			
Density	960	kg/m ³	ISO 1183
Injection			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	3	h	
Processing Moisture Content	≤0.08	%	
Max. regrind level	20	%	
Min. mould temperature	10	°C	
Max. mould temperature	52	°C	
Back pressure	0.517	MPa	
Extrusion			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	3		
Melt Temperature Range	204	°C	

Additional information

Processing Notes

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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.

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