

# SANTOPRENE<sup>®</sup> 201-80

SANTOPRENE®

A soft, 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	47	MPa	ISO 37
Stress at break, perpendicular		MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	540		ISO 527-1/-2 or ISO 37
Brittleness temperature	-60		ISO 974
Brittleness Temperature	-60	°C	ASTM D 746
Shore A hardness, 15s	86		ISO 48-4 / ISO 868
Compression set, 70°C, 24h	41	%	ISO 815
Compression set, 125°C, 70h	47	%	ISO 815
Tear strength, normal	35	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		°C	UL 746B
RTI, strength, 3.0mm	100	°C	UL 746B
Specific Application Suitability			
Continuous Upper Temperature Resistance, 1000h	135	°C	SAE J2236
Detergent resistance	f3	Ũ	UL 749
Detergent resistance	f4		UL 2157
Flammability			
Burning Behav. at 1.5mm nom. thickn.	ЦВ	class	IEC 60695-11-10
Thickness tested		mm	IEC 60695-11-10
UL recognition	ves		UL 94
Burning Behav. at thickness h		class	IEC 60695-11-10
Thickness tested		mm	IEC 60695-11-10
UL recognition	yes		UL 94
Hot Wire Ignition, 1.5mm	PLC 3	S	UL 746A
Hot Wire Ignition, 3mm	PLC 2	S	UL 746A

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### **SANTOPRENE®**

### Electrical properties

Relative permittivity, 60Hz Arc Resistance Performance Level Category Electric Strength, Short Time, 2mm High Amperage Arc Ignition Category, 1.5 mm	2.3 PLC 6 32 PLC 0	kV/mm	IEC 62631-2-1 UL 746B ASTM D 149 UL 746A
Physical/Other properties			
Density	960	kg/m³	ISO 1183
Injection			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	-	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	h	
Melt Temperature Range	202	°C	

#### Additional information

**Processing Notes** 

#### **Processing Notes**

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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