

## SANTOPRENE<sup>®</sup> 101-64

## **SANTOPRENE®**

A soft, black, 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 or blow molding. 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**

r roddet information		
Resin Identification	TPV	ISO 1043
Part Marking Code	>TPV<	ISO 11469
Typical mechanical properties		
Tensile stress at 100% elongation, perpendicular	2.83 MPa	ISO 527-1/-2 or ISO 37
Stress at break, perpendicular	6.47 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	450 %	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	70	ISO 48-4 / ISO 868
Compression set, 70°C, 24h	25 %	ISO 815
Tear strength, normal	23 kN/m	ISO 34-1
Thermal properties		
RTI, electrical, 1.5mm	90 °C	UL 746B
RTI, electrical, 3.0mm	90 °C	UL 746B
RTI, strength, 1.5mm	90 °C	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	UL 749
Detergent resistance	f4	UL 2157
Outdoor suitability	f1	UL 746C
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	HB class	IEC 60695-11-10
Thickness tested	1 mm	IEC 60695-11-10
UL recognition	yes	UL 94
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Electrical properties Relative permittivity, 60Hz Arc Resistance Performance Level Category High Amperage Arc Ignition Category, 1.5 mm	2.5 PLC 6 PLC 0		IEC 62631-2-1 UL 746B UL 746A
Physical/Other properties			
Density	970	kg/m³	ISO 1183
Injection			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer			
Processing Moisture Content	≤0.08	%	
Max. regrind level	20	%	
Melt Temperature Optimum	215	°C	
Min. melt temperature	165	-	
Max. melt temperature	265		
Mold Temperature Optimum		°C	
Min. mould temperature		°C	
Max. mould temperature		°C	
Back pressure	0.517		
Ejection temperature	90	°C	
Extrusion			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	3	h	
Melt Temperature Range	196	°C	

## Additional information

Non Standard Data

Property Name	Condition	Value	Unit	Standard
Change in Tensile Strength	150°C, 168h	-9.4	%	ISO 188
Change in Tensile Strain at Break	150°C, 168h	-7.7	%	ISO 188
Change in Shore A Hardness	150°C, 168h	1.3	-	ISO 188

### **Processing Notes**

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Desiccant drying for 3 hours at 80 °C (180 °F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to 230 °C (350 to

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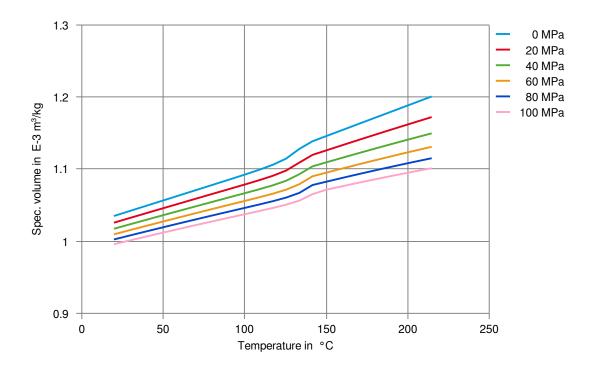


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450°F) and is incompatible with acetal and PVC.

## Specific volume-temperature (pvT)



### Printed: 2024-04-19

Page: 3 of 3

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