

SANTOPRENE[®] 101-73

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, 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

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Resin Identification	TPV	ISO 1043
Part Marking Code	>TPV<	ISO 11469
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Typical mechanical properties		
Tensile stress at 100% elongation, perpendicular	3.44 MPa	ISO 527-1/-2 or ISO 37
Stress at break, perpendicular	7.98 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	478 %	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-60 °C	ASTM D 746
Shore A hardness, 15s	78	ISO 48-4 / ISO 868
Compression set, 70°C, 24h	27 %	ISO 815
Tear strength, normal	25 kN/m	ISO 34-1
Thermal properties		
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
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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	HB 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 s	UL 746A
Hot Wire Ignition, 3mm	PLC 3 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	2.5 PLC 6 27 PLC 0	kV/mm	IEC 62631-2-1 UL 746B ASTM D 149 UL 746A
Physical/Other properties			
Density	970	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	%	
Melt Temperature Optimum	215	°C	
Min. melt temperature	165		
Max. melt temperature	265	°C	
Mold Temperature Optimum	50	°C	
Min. mould temperature		°C	
Max. mould temperature		°C	
Back pressure	0.517		
Ejection temperature	94	°C	
Extrusion			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer		h	
Melt Temperature Range	202	°C	

Additional information

Processing Notes

Processing Notes

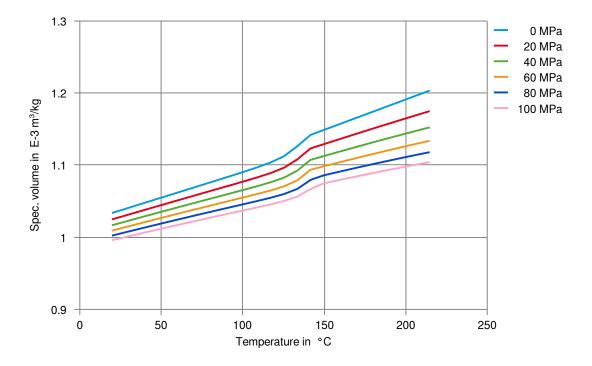
Desiccant drying for 3 hours at 80 °C (180 °F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to 230 °C (350 to 450 °F) and is incompatible with acetal and PVC.



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Specific volume-temperature (pvT)



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