

SANTOPRENE[®] 101-55

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 or extrusion. 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	1.88	MPa	ISO 527-1/-2 or ISO 37
Stress at break, perpendicular	5.01 I	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	420 9	%	ISO 527-1/-2 or ISO 37
Brittleness temperature	-60	°C	ISO 974
Shore A hardness, 15s	60		ISO 48-4 / ISO 868
Compression set, 70°C, 24h	23 (%	ISO 815
Tear strength, normal	18	kN/m	ISO 34-1
Thermal properties			
RTI, electrical, 1.5mm	90	°C	UL 746B
RTI, electrical, 3.0mm	90		UL 746B
RTI, strength, 1.5mm	90		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
-			
Flammability			
Burning Behav. at 1.5mm nom. thickn.	HB d	class	IEC 60695-11-10
Thickness tested	1.5 r	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Burning Behav. at thickness h	ΉB α	class	IEC 60695-11-10
Thickness tested	1 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	2.4		IEC 62631-2-1
Arc Resistance Performance Level Category	PLC 6	class	UL 746B
High Amperage Arc Ignition Category, 1.5 mm	PLC 0		UL 746A
Physical/Other properties			
Density	970	kg/m ³	ISO 1183
Injection			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer		h	
Processing Moisture Content	≤0.08		
Max. regrind level	20		
Melt Temperature Optimum	215		
Min. melt temperature	165		
Max. melt temperature	265		
Mold Temperature Optimum	50	°C	
Min. mould temperature	20	°C	
Max. mould temperature	80	°C	
Back pressure	0.517	MPa	
Ejection temperature	89	°C	
Extrusion			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer		h	
Melt Temperature Range	196		

Additional information

Non Standard Data

Property Name	Condition	Value	Unit	Standard
Change in Tensile Strength	150°C, 168h	-15	%	ISO 188
Change in Tensile Strain at Break	150°C, 168h	13	%	ISO 188
Change in Shore A Hardness	150°C, 168h	-1	-	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

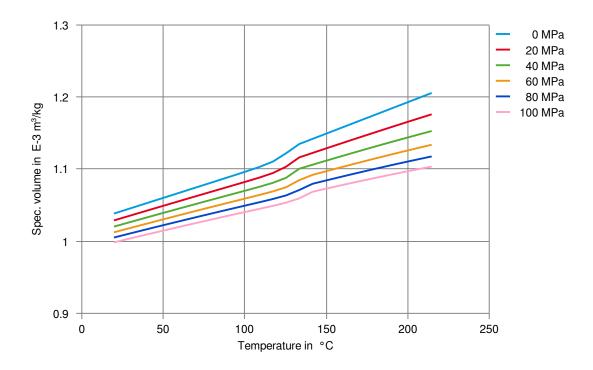


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230°C (350 to 450°F) and is incompatible with acetal and PVC.

Specific volume-temperature (pvT)



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