

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

Resin Identification Part Marking Code	TPV >TPV<		ISO 1043 ISO 11469
Typical mechanical properties			
Tensile stress at 100% elongation, perpendicular Stress at break, perpendicular Elongation at break, perpendicular Brittleness temperature Shore A hardness, 15s Compression set, 70°C, 24h Compression set, 125°C, 70h		°C %	ISO 37 ISO 527-1/-2 or ISO 37 ISO 527-1/-2 or ISO 37 ISO 974 ISO 48-4 / ISO 868 ISO 815 ISO 815
Tear strength, normal	18	kN/m	ISO 34-1
Thermal properties RTI, electrical, 1.5mm RTI, electrical, 3.0mm RTI, strength, 1.5mm RTI, strength, 3.0mm Specific Application Suitability	90 90	°C °C °C	UL 746B UL 746B UL 746B UL 746B
Continuous Upper Temperature Resistance, 1000h Detergent resistance Detergent resistance	135 f3 f4	°C	SAE J2236 UL 749 UL 2157
Flammability			
Burning Behav. at 1.5mm nom. thickn. Thickness tested UL recognition Burning Behav. at thickness h Thickness tested UL recognition Burning rate, Thickness 2 mm Hot Wire Ignition, 1.5mm	1.5 yes HB 1 yes		IEC 60695-11-10 IEC 60695-11-10 UL 94 IEC 60695-11-10 IEC 60695-11-10 UL 94 ISO 3795 (FMVSS 302) UL 746A UL 746A
Hot Wire Ignition, 3mm	PLC 3	5	UL /46A

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Electrical properties

Relative permittivity, 60Hz

2.4

Arc Resistance Performance Level Category

High Amperage Arc Ignition Category, 1.5 mm

PLC 0 class

UL 746A

Physical/Other properties

Density 970 kg/m³ ISO 1183

Injection

Max. regrind level20 %Back pressure0.517 MPaEjection temperature89 °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	-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 $80\,^{\circ}$ C ($180\,^{\circ}$ F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to 230 $\,^{\circ}$ C (350 to $450\,^{\circ}$ F) and is incompatible with acetal and PVC.

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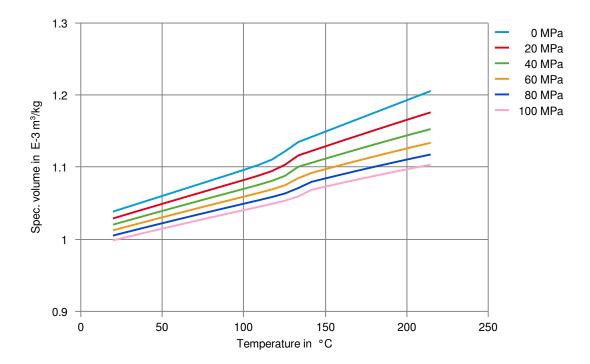
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Specific volume-temperature (pvT)



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