

SANTOPRENE® 101-87

SANTOPRENE®

A hard, 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; file #QMTT2.E86313, Polymeric Materials for Use in Wire, Cable and Flexible Lighting Products -

- 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 Tear strength, normal	15.6 597 -54 94 37	°C	ISO 527-1/-2 or ISO 37 ISO 527-1/-2 or ISO 37 ISO 527-1/-2 or ISO 37 ASTM D 746 ISO 48-4 / ISO 868 ISO 815 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 Outdoor suitability	135 f3 f4 f1	°C	SAE J2236 UL 749 UL 2157 UL 746C
Flammability			
Burning Behav. at 1.5mm nom. thickn. Thickness tested UL recognition Burning Behav. at thickness h Thickness tested UL recognition Hot Wire Ignition, 1.5mm	1.5 yes HB 1 yes PLC 3	s	IEC 60695-11-10 IEC 60695-11-10 UL 94 IEC 60695-11-10 IEC 60695-11-10 UL 94 UL 746A
Hot Wire Ignition, 3mm	PLC 2	S	UL 746A

Printed: 2024-04-19 Page: 1 of 3

Revised: 2024-03-25 Source: Celanese Materials Database



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Electrical properties

Relative permittivity, 60Hz	2.6	IEC 62631-2-1
Arc Resistance Performance Level Category	PLC 5 class	UL 746B
Electric Strength, Short Time, 2mm	30 kV/mm	ASTM D 149
High Amperage Arc Ignition Category, 1.5 mm	PLC 0 class	UL 746A

Physical/Other properties

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	°C
Max. melt temperature	265	°C
Mold Temperature Optimum	50	°C
Min. mould temperature	20	°C
Max. mould temperature	80	°C
Back pressure	0.517	MPa
Ejection temperature	94	°C

Extrusion

Drying Temperature	82	°C
Drying Time, Dehumidified Dryer	3	h
Melt Temperature Range	204	°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.

Printed: 2024-04-19 Page: 2 of 3

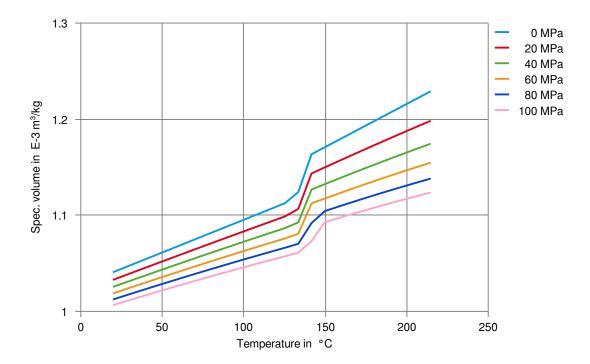
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Specific volume-temperature (pvT)



Printed: 2024-04-19 Page: 3 of 3

Revised: 2024-03-25 Source: Celanese Materials Database

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