SANTOPRENE® 8201-90

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A hard, colorable, non-hygroscopic 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

- Non-hygroscopic product, requires little to no drying before processing.
- Neutral, easy coloring formulation.
- Recommended for applications requiring excellent ozone resistance.
- Used in sealing applications.
- Recommended for applications requiring excellent flex fatigue resistance.
- UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component.

Product information

Resin Identification	TPV	ISO 1043
Part Marking Code	>TPV<	ISO 11469

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	7.1	MPa	ISO 37
Stress at break, perpendicular	13	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	620	%	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-54	°C	ASTM D 746
Shore A hardness, 15s	94		ISO 48-4 / ISO 868
Compression set, 70°C, 24h	52	%	ISO 815

Thermal properties

RTI, electrical, 1.5mm	100	°C	UL 746B
RTI, electrical, 3.0mm	100	°C	UL 746B
RTI, strength, 1.5mm	90	°C	UL 746B
RTI, strength, 3.0mm	95	°C	UL 746B

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.6	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Burning Behav. at thickness h	HB	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 2	s	UL 746A

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Electrical properties

Arc Resistance Performance Level Category	PLC 5	class	UL 746B
High Amperage Arc Ignition Category, 1.5 mm	PLC 0	class	UL 746A

Physical/Other properties

Density	940	kg/m³	ISO 1183

Injection

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	89	°C

Extrusion

Melt Temperature Range	196 - 224	°C

Additional information

Processing Notes

Processing Notes

Desiccant drying for 3 hours at 80°C (180°F) can be performed if desired. 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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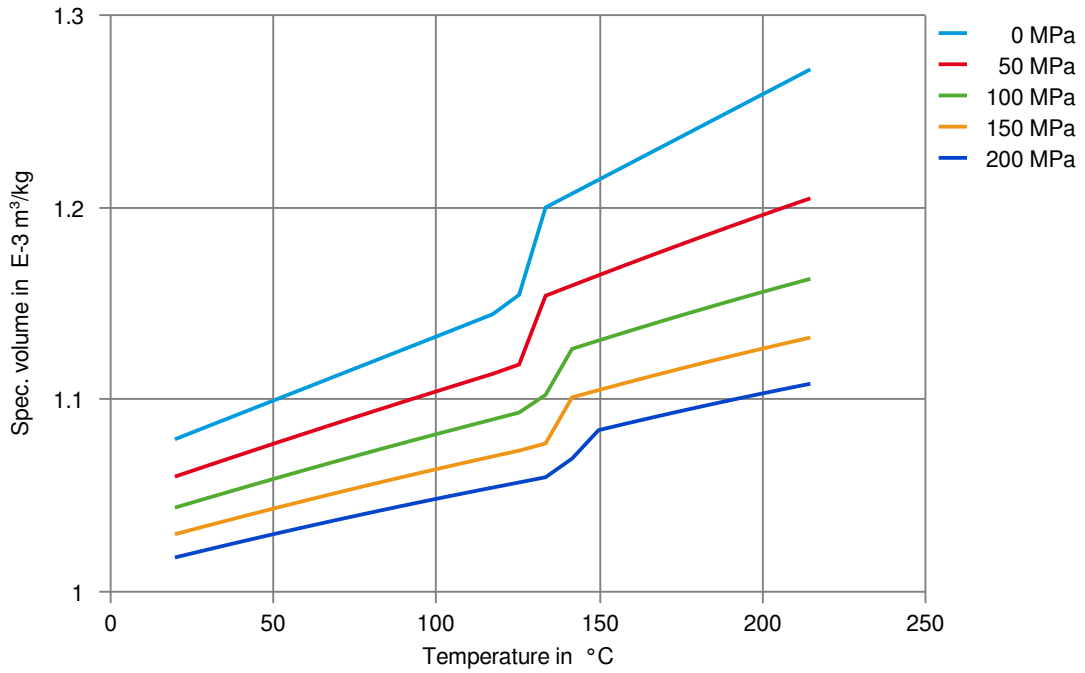
Specific volume-temperature (pvT)



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