

SANTOPRENE[®] 211-45

SANTOPRENE®

A soft, colorable, 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 injection molding applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recyclable within the manufacturing stream.

Key Features

- · Recommended for applications requiring excellent flex fatigue resistance.
- Excellent ozone resistance.
- · UL listed: file #QMFZ2.E80017, Plastics Component; file #QMFZ8.E80017, Plastics Certified For Canada Component.
- · Used in sealing applications.

Product information			
Resin Identification	TPV		ISO 1043
Part Marking Code	>TPV<		ISO 11469
Typical mechanical properties			
Tensile stress at 100% elongation, perpendicular	1.4	MPa	ISO 527-1/-2 or ISO 37
Stress at break, perpendicular	3.5	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	340	%	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-62	°C	ASTM D 746
Shore A hardness, 15s	49		ISO 48-4 / ISO 868
Compression set, 23°C, 24h	11	%	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 thickness h	HB	class	IEC 60695-11-10
Thickness tested	1	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Electrical properties			
Relative permittivity, 60Hz	2.4		IEC 62631-2-1
Electric Strength, Short Time, 2mm		kV/mm	ASTM D 149
Physical/Other properties			
Density	960	kg/m³	ISO 1183



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Injection

Drying Temperature	82 °C
Drying Time, Dehumidified Dryer	3 h
Processing Moisture Content	≤0.08 %
Max. regrind level	20 %
Min. mould temperature	10 °C
Max. mould temperature	52 °C
Back pressure	0.517 MPa

Additional information

Processing Notes

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Desiccant drying for 3 hours at $80 \degree C$ ($180 \degree F$) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to $230 \degree C$ ($350 to 450 \degree F$) and is incompatible with acetal and PVC. An SPI/SPE #3 finish is recommended (do not polish).

Printed: 2024-04-19

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

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