

SANTOPRENE[®] 203-50

SANTOPRENE®

A hard, 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 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

1.1

UL listed: file #QMFZ2.E80017, Plastics - Component; file #QMFZ8.E80017, Plastics Certified For Canada - Component.
Excellent ozone resistance.

Product information			
Resin Identification	TPV		ISO 1043
Part Marking Code	>TPV<		ISO 11469
Typical mechanical properties			
Brittleness Temperature	-28	°C	ASTM D 746
Shore D hardness, 15s	51		ISO 48-4 / ISO 868
Compression set, 70°C, 24h	59 74		ISO 815
Compression set, 125°C, 70h Tear strength, normal		% kN/m	ISO 815 ISO 34-1
real strength, horman	50		100 04-1
Thermal properties			
RTI, electrical, 1.5mm	85	°C	UL 746B
RTI, electrical, 3.0mm		°C	UL 746B
RTI, strength, 1.5mm		°C	UL 746B
RTI, strength, 3.0mm	85	°C	UL 746B
Specific Application Suitability			
Detergent resistance	f3		UL 749
Detergent resistance	f4		UL 2157
Flammability			
Burning Behav. at 1.5mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested		mm	IEC 60695-11-10
UL recognition	yes		UL 94
Burning Behav. at thickness h Thickness tested		class mm	IEC 60695-11-10 IEC 60695-11-10
UL recognition	yes		UL 94
Hot Wire Ignition, 1.5mm	PLC 3	S	UL 746A
Hot Wire Ignition, 3mm	PLC 1	S	UL 746A
Electrical properties			
Relative permittivity, 60Hz	2.3		IEC 62631-2-1
Arc Resistance Performance Level Category	PLC 5	class	UL 746B
Electric Strength, Short Time, 2mm		kV/mm	ASTM D 149
High Amperage Arc Ignition Category, 1.5 mm	PLC 0	class	UL 746A

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ISO 1183

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Physical/Other properties

Density	950	kg/m³
Injection		
Max. regrind level	20	%
Back pressure	0.517	MPa
Extrusion		
Drying Temperature	82	°C
Drying Time, Dehumidified Dryer	3	h
Melt Temperature Range	210	°C

Additional information

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

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