

SANTOPRENE® 203-40

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

- · UL listed: file #QMFZ2.E80017, Plastics Component; file #QMFZ8.E80017, Plastics Certified For Canada Component.
- · 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 D hardness, 15s Compression set, 70°C, 24h Compression set, 125°C, 70h Tear strength, normal	20.7 610 -52 41 54 61	°C %	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 815
Thermal properties			
RTI, electrical, 1.5mm RTI, electrical, 3.0mm RTI, strength, 1.5mm RTI, strength, 3.0mm	85 85	°C °C °C	UL 746B UL 746B UL 746B UL 746B
Specific Application Suitability			
Detergent resistance Detergent resistance	f3 f4		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 Hot Wire Ignition, 1.5mm Hot Wire Ignition, 3mm	1.5 yes HB		IEC 60695-11-10 IEC 60695-11-10 UL 94 IEC 60695-11-10 IEC 60695-11-10 UL 94 UL 746A UL 746A

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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	28 kV/mm	ASTM D 149
High Amperage Arc Ignition Category, 1.5 mm	PLC 0 class	UL 746A

Physical/Other properties

Density	950 kg/m ³	ISO 1183

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

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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