

SANTOPRENE® 123-40

A hard, black, UV resistant 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

- Recommended for applications requiring excellent flex fatigue resistance
- Excellent ozone resistance
- Designed for improved UV resistance

Typical mechanical properties

Stress at 100% elongation	9.1 MPa	ISO 527-1/-2 or ISO 37
Stress at break	19.1 MPa	ISO 527-1/-2 or ISO 37
Elongation at break	620 %	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-58 °C	ASTM D 746
Low temperature brittleness	-58 °C	ISO 812
Shore D hardness, 15s	41	ISO 48-4 / ISO 868
Shore D hardness, 168h at 150 °C	2	ISO 48-4 / ISO 868

Electrical properties

Electric Strength, Short Time, 2mm	31 kV/mm	ASTM D 149
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Other properties

Density	960 kg/m ³	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 %
Max. mould temperature	10 - 52 °C
Vent depth	25 µm
Back pressure	0.345 - 0.689 MPa
Injection speed	fast

Extrusion

Drying Temperature	82 °C
Drying Time, Dehumidified Dryer	3 h
Melt Temperature Range	210 °C

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Processing Texts

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.

Other Approvals

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OEM	Specification	Additional Information
Stellantis - Chrysler	MS-AR-100 GGV	
GM	GMW15812, Type 9	
Stellantis - FCA Group	55248/02	EMP-140
Li Auto	Q/LiA5310057	2021 (V2)
Mercedes-Benz Group (Daimler)	DBL 5562	
VW Group	TL 526 22	MD22
VW Group	VW50123	