SANTOPRENE® 123-40

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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

Product information

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

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	9.1	MPa	ISO 527-1/-2 or ISO 37
Stress at break, perpendicular	19.1	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	620	%	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-58	°C	ASTM D 746
Shore D hardness, 15s	41		ISO 48-4 / ISO 868

Electrical properties

Relative permittivity, 60Hz	2.6		IEC 62631-2-1
Electric Strength, Short Time, 2mm	31	kV/mm	ASTM D 149

Physical/Other properties

Density	960	kg/m³	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

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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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