

# SANTOPRENE® 123-50W175

## SANTOPRENE®

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 thin wall 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
- Recommended for applications requiring excellent ozone resistance
- Designed for improved UV resistance

### Product information

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

### Typical mechanical properties

Yield stress, perpendicular	13 MPa	ISO 527-1/-2 or ISO 37
Yield strain, perpendicular	26 %	ISO 527-1/-2 or ISO 37
Shore D hardness, 15s	51	ISO 48-4 / ISO 868
Initial Tear Resist., Die C	110 kN/m	ISO 34-1

### Flammability

FMVSS Class	B	ISO 3795 (FMVSS 302)
Burning rate, Thickness 2 mm	38.3 mm/min	ISO 3795 (FMVSS 302)

### Physical/Other properties

Density	950 kg/m <sup>3</sup>	ISO 1183
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### Characteristics

Processing	Injection Moulding, Multi Injection Moulding, Extrusion, Sheet Extrusion, Coextrusion, Blow Moulding, Thermoforming
Delivery form	Pellets
Special characteristics	U.V. stabilised or stable to weather

### Additional information

Injection molding	Holding pressure should be about 50 to 75% of the actual injection pressure. A high screw RPM (100 to 200) is recommended. Back pressure is not always needed, however, a back pressure of 0.3 to 0.7 MPa may be used to ensure a homogeneous melt and maintain a consistent shot size. A higher back pressure is normally employed when using masterbatches.
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#### 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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### Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
Dongfeng Motor	EQCL-67-2017 TPE 55D	
General Motors	GMW15812P-TPV(EPDM+PP)-Type 10E	N/A
Hyundai	MS220-05 Type R	
Hyundai	MS220-13 Type F-1	
IVECO	IVECO 15-5244	EMP-150
Mercedes-Benz	DBL5562	
Renault	FRM 18-27-038 /---, No Spec, Special Part Approval, See Your CE Account Manager.	
Stellantis	55248_02 EMP150	MS-AR-100 HGV
VW Group	VW 50123	