

SANTOPRENE® 123-50W175

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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 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 ³	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

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.

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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	