



ISO 1043

# SANTOPRENE® 121-67W175

## **SANTOPRENE®**

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance, and is designed for thin wall or complex profile extrusion applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for extrusion, 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
- Designed for extruding thin wall sections with excellent definition (down to 0.33 mm [0.013"] radius) and to maximize run length with minimal build-up of material on screen packs or narrow sections of dies

**TPV** 

#### **Product information**

Resin Identification

Part Marking Code	>TPV<		ISO 11469
Typical mechanical properties			
Tensile stress at 100% elongation, perpendicular	2.89	MPa	ISO 37
Tensile stress at break, perpendicular		MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	432	%	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-59	°C	ASTM D 746
Low temperature brittleness	-59	°C	ISO 812
Shore A hardness, 15s	72		ISO 48-4 / ISO 868
Compression set, 70°C, 24h	29	%	ISO 815
Compression set, 125°C, 70h	43	%	ISO 815
Tear strength, normal	24	kN/m	ISO 34-1
Specific Application Suitability			
Continuous Upper Temperature Resistance, 1000h	135	°C	SAE J2236
Flammability			
FMVSS Class	В		ISO 3795 (FMVSS 302)
Burning rate, Thickness 2 mm	_	mm/min	ISO 3795 (FMVSS 302)
Darring rate, Triotalese 2 min	20.0		100 0700 (1 111100 002)
Electrical properties			
Relative permittivity, 60Hz	2.6		IEC 62631-2-1
Physical/Other properties			
Density	970	kg/m³	ISO 1183

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## **SANTOPRENE®**

#### Extrusion

Drying Temperature 82 °C
Drying Time, Dehumidified Dryer 3 h
Melt Temperature Range 177 - 204 °C

#### Characteristics

Processing Extrusion, Sheet Extrusion, Coextrusion, Thermoforming

Delivery form Pellets

Special characteristics U.V. stabilised or stable to weather

#### Additional information

Non Standard Data

Property Name	Condition	Value	Unit	Standard
Change in Tensile Strength	150°C, 168h	-12.1	%	ISO 188
Change in Tensile Strain at Break	150°C, 168h	-0.5	%	ISO 188
Change in Shore A Hardness	150°C, 168h	0	-	ISO 188

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.

Processing Notes Processing Notes

Desiccant drying for 3 hours at  $80\,^{\circ}$ C ( $180\,^{\circ}$ F) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to  $230\,^{\circ}$ C (350 to  $450\,^{\circ}$ F) and is incompatible with acetal and PVC. Do not exceed 15% drawdown.

#### **Automotive**

OEM STANDARD ADDITIONAL INFORMATION

 Chery
 Q/SQR.04.1195-2011

 Ford
 WSS-M2D379-B1

 GAC
 QJ/GAC 1240.022

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### **SANTOPRENE®**

Geely Q/JLY J7110166C-2024

General Motors GMW15812P-TPV(EPDM+PP)-Type 5E N/A

Li Auto Q/LiA5310057 2021 (V2)

Mercedes-Benz DBL5562

Renault FRM 18-27-040 /--B, No Spec, Special Part

Approval, See Your CE Account Manager.

SAIC Motor SMTC 5 320 024

Stellantis 55248\_02 EMP70 01378\_22\_03405;MS-AR-100 BGV

 VW Group
 TL 526 41C

 VW Group
 VW 50123

 VW Group
 VW 52703

 VW Group
 VW TL 527 03

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