

# SANTOPRENE<sup>®</sup> 121-87

## **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 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**

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Resin Identification	TPV		ISO 1043
Part Marking Code	>TPV<		ISO 11469
Typical mechanical properties			
Tensile stress at 100% elongation, perpendicular	6.8	MPa	ISO 37
Stress at break, perpendicular	15.2	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	600	%	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-58	°C	ASTM D 746
Shore A hardness, 15s	93		ISO 48-4 / ISO 868
Compression set, 23°C, 24h	28		ISO 815
Compression set, 125°C, 70h	65	%	ISO 815
Specific Application Suitability			
Continuous Upper Temperature Resistance, 1000h	135	°C	SAE J2236
Electrical properties			
Relative permittivity, 60Hz	2.7		IEC 62631-2-1
Electric Strength, Short Time, 2mm		kV/mm	ASTM D 149
Physical/Other properties			
Density	970	kg/m³	ISO 1183
Injection			
Drying Temperature	82	°C	
Drying Time, Dehumidified Dryer	3		
Processing Moisture Content	≤0.08		
Max. regrind level	20		
Min. mould temperature	-	°C	
Max. mould temperature		°C	
Back pressure	0.517	MPa	



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#### Extrusion

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

### Additional information

**Processing Notes** 

#### **Processing Notes**

Desiccant drying for 3 hours at  $80 \degree C$  ( $180 \degree F$ ) is recommended. Santoprene® TPV has a wide temperature processing window from 175 to  $230 \degree C$  (350 to  $450 \degree F$ ) and is incompatible with acetal and PVC.

#### Printed: 2024-05-13

#### Revised: 2024-03-25 Source: Celanese Materials Database

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