

# SANTOPRENE® 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

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

### Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	6.8 MPa	ISO 527-1/-2 or 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

### Specific Application Suitability

Continuous Upper Temperature Resistance, 1000h	135 °C	SAE J2236
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### Electrical properties

Relative permittivity, 60Hz	2.7	IEC 62631-2-1
Electric Strength, Short Time, 2mm	26 kV/mm	ASTM D 149

### Physical/Other properties

Density	970 kg/m <sup>3</sup>	ISO 1183
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### 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

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### Extrusion

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

### 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.