



# SANTOPRENE® 121-65B200

# **SANTOPRENE®**

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is specially formulated to bond to thermoset EPDM rubber for corner molding, end caps and special applications requiring such adhesion to thermoset EPDM. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recyclable within the manufacturing stream.

## **Key Features**

- Adheres to vulcanized EPDM rubber over wide range of temperatures
- · High flexibility targeted for dynamic EPDM applications
- Higher gloss enables matching EPDM mating surface
- Used in sealing applications

### **Product information**

Resin Identification	TPV		ISO 1043
Part Marking Code	>TPV<		ISO 11469
Typical mechanical properties			
Tensile stress at 100% elongation, perpendicular	2.3	MPa	ISO 37
Tensile stress at break, perpendicular	9.2	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	600	%	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	67		ISO 48-4 / ISO 868
Compression set, 23°C, 24h	22	%	ISO 815
Compression set, 70°C, 24h	48	%	ISO 815
Physical/Other properties			
Density	910	kg/m³	ISO 1183
Injection			

Drying Recommended	yes
Drying Temperature	65 °C
Drying Time, Dehumidified Dryer	≥3 h
Processing Moisture Content	≤0.08 %
Melt Temperature Optimum	240 °C
Min. melt temperature	220 °C
Max. melt temperature	260 °C
Mold Temperature Optimum	40 °C
Min. mould temperature	30 °C
Max. mould temperature	50 °C

#### Characteristics

Processing Injection Moulding, Multi Injection Moulding

Delivery form **Pellets** 

Special characteristics U.V. stabilised or stable to weather

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#### 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.

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.

Santoprene® TPV has a relatively high melt viscosity at low shear rates. Viscosity decreases as the shear rate increases.

Increasing temperature has little effect on TPV melt viscosity. Smaller gates and higher shear rates keep melt viscosity low and improve melt flow. Please also refer to the injection molding guide.

#### **Automotive**

OEM STANDARD ADDITIONAL INFORMATION

Geely Q/JLY J7110166C-2024

Li Auto Q/LiA5310057 2021 (V2)

Mercedes-Benz DBL5562

Renault FRM 18-27-141 /---, No Spec, Special Part

Approval, See Your CE Account Manager.

SAIC Motor SMTC 5 320 024

Stellantis 55248\_02 EMP60 01378\_21\_03313

 VW Group
 VW 50123

 VW Group
 VW 50180

 VW Group
 VW TL 526 41-C

 VW Group
 VW TL 527 03

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