

SANTOPRENE® 121-80B200

SANTOPRENE®

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is specially formulated to enhance bonding onto EPDM vulcanized parts and TPV materials. It offers better adhesion on a small contact area, such as for weatherseals with thin lips or complex geometry. 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 TPV and vulcanized EPDM rubber over a wide range of temperatures
- High flexibility and targeted to automotive profiles, TPV or EPDM rubber
- Higher gloss enables matching better extruded profile mating surface
- Used in sealing applications
- Corner Molding

Product information

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

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	3.9 MPa	ISO 37
Tensile stress at break, perpendicular	11.9 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	725 %	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	81	ISO 48-4 / ISO 868

Physical/Other properties

Density	910 kg/m ³	ISO 1183
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Injection

Drying Recommended	yes
Drying Temperature	65 °C
Drying Time, Dehumidified Dryer	≥3 h
Processing Moisture Content	≤0.08 %
Melt Temperature Optimum	220 °C
Min. melt temperature	210 °C
Max. melt temperature	230 °C
Mold Temperature Optimum	50 °C
Min. mould temperature	40 °C
Max. mould temperature	60 °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 18-27-142, No Spec, Special Part Approval, See Your CE Account Manager.	
SAIC Motor	SMTc 5 320 024	
Stellantis	55248_02 EMP80	01378_15_01962
VW Group	VW 50123	
VW Group	VW 52703	