

SANTOPRENE® 291-60B150

SANTOPRENE®

A colorable, specialty thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. It is especially formulated to bond to PC, ABS, PC/ABS, ASA and PMMA for applications where hard/soft combinations are required. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding or extrusion.

Key Features

- Designed for excellent adhesion to PC, ABS, PC/ABS, ASA and PMMA (cold insert or 2K [two-shot] molding).
- Broad processing window in injection molding.
- Recommended for applications requiring superior part surface appearance.
- Designed for soft touch applications.

Product information

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

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	2.1 MPa	ISO 37
Tensile stress at break, perpendicular	8 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	540 %	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	65	ISO 48-4 / ISO 868
Compression set, 23 °C, 24h	34 %	ISO 815
Compression set, 70 °C, 24h	62 %	ISO 815

Flammability

FMVSS Class	B	ISO 3795 (FMVSS 302)
Burning rate, Thickness 2 mm	32.6 mm/min	ISO 3795 (FMVSS 302)

Physical/Other properties

Density	1060 kg/m ³	ISO 1183
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Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	≥3 h
Processing Moisture Content	≤0.03 %
Melt Temperature Optimum	210 °C
Min. melt temperature	190 °C
Max. melt temperature	230 °C
Mold Temperature Optimum	40 °C
Min. mould temperature	30 °C
Max. mould temperature	50 °C

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Characteristics

Processing	Injection Moulding, Multi Injection Moulding, Coextrusion
Delivery form	Pellets

Additional information

Non Standard Data

Property Name	Condition	Value	Unit	Standard
Change in Tensile Strength	100 °C, 168h	0	%	ISO 188
Change in Tensile Strain at Break	100 °C, 168h	-11	%	ISO 188
Change in Shore A Hardness	100 °C, 672h	-2	-	ISO 188
Change in Mass	100 °C, 168h	-1.1	%	ISO 188
Change in Volume	100 °C, 168h	-1.2	%	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 90 °C (194 °F) is recommended. Because of its inherent nature to bond, this material may, on occasion, agglomerate from shipping and storage. Santoprene® TPV 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.

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Automotive

OEM

General Motors

ADDITIONAL INFORMATION

Special Parts Approval, See Your CE Account
Representative for Further Details.