

SANTOPRENE® 8211-85M350

SANTOPRENE®

A hard, colorable, thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is developed to be used as a skin for molding onto rigid polypropylene substrates in automotive interior applications such as door panels and center consoles. For these applications, this grade combines low gloss, high scratch and mar resistance, low emissions (fogging, odor) and comfort touch. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional mono- and multi-component injection molding machines. It is polyolefin based, adheres to and is compatible with polypropylene, and is recyclable within the manufacturing stream.

Key Features

- Non-hygroscopic product, requires little to no drying before processing.
- Neutral, easy coloring formulation.
- Designed for applications requiring high-flow materials.
- Low emissions.
- Cost effective alternative to soft touch paint over PP substrate.

Product information

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

Typical mechanical properties

Tensile stress at break, perpendicular	8.8 MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	480 %	ISO 527-1/-2 or ISO 37
Shore A hardness, 15s	86	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	80 °C
Drying Time, Dehumidified Dryer	≥3 h
Processing Moisture Content	≤0.08 %
Melt Temperature Optimum	200 °C
Min. melt temperature	190 °C
Max. melt temperature	215 °C
Mold Temperature Optimum	35 °C
Min. mould temperature	20 °C
Max. mould temperature	50 °C

Characteristics

Processing	Injection Moulding, Multi Injection Moulding
Delivery form	Pellets
Special characteristics	High Flow

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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

General Motors

Mercedes-Benz

VW Group

VW Group

ADDITIONAL INFORMATION

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

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