Celanese
The chemistry inside innovation™

SANTOPRENE® 121-60M200

SANTOPRENE®

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material is specially formulated with high flow properties and excellent aesthetics for use in injection molded parts such as automotive glass encapsulation. 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

- Designed for fast, easy injection molding, especially for complex part geometries
- Designed to be injected at lower molding temperatures or at lower injection pressures
- Designed with higher gloss to allow for a wider range of gloss tailoring via mold surface
- Recommended for applications requiring superior part surface appearance with minimal to no flow defects or tiger stripes

Product information

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

Rheological properties

Moulding shrinkage, parallel	1.3[1]	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.8[1]	%	ISO 294-4, 2577

[1]: 2.0 mm thickness, min. 24 hours after molding, per test method TPE-X0080

Typical mechanical properties

Tensile stress at 100% elongation, perpendicular	2.06	MPa	ISO 37
Tensile stress at break, perpendicular	4.1	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	379	%	ISO 527-1/-2 or ISO 37
Low temperature brittleness	-59	°C	ISO 812
Shore A hardness, 15s	61		ISO 48-4 / ISO 868
Compression set, 70°C, 24h	28	%	ISO 815
Compression set, 125°C, 70h	44	%	ISO 815
Tear strength, normal	18	kN/m	ISO 34-1

Physical/Other properties

Density	950	kg/m³	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	80	°C
Drying Time, Dehumidified Dryer	≥3	h
Processing Moisture Content	≤0.08	%
Melt Temperature Optimum	210	°C
Min. melt temperature	195	°C
Max. melt temperature	230	°C
Mold Temperature Optimum	35	°C
Min. mould temperature	10	°C
Max. mould temperature	60	°C

Celanese
The chemistry inside innovation™

SANTOPRENE® 121-60M200

SANTOPRENE®

Characteristics

Processing	Injection Moulding, Multi Injection Moulding
Delivery form	Pellets
Special characteristics	U.V. stabilised or stable to weather, High Flow

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 J7110166B-2017	
General Motors	GMW15812P-TPV(EPDM+PP)-Type 5M	Black
Li Auto	Q/LiA5310057	
Mercedes-Benz	DBL5562	
Renault	FRM 18-27-205 /---, No Spec, Special Part Approval, See Your CE Account Manager.	
Stellantis	MS-AR-100 BMV-HF	01378_21_03315
VW Group	VW 50123	
VW Group	VW 50180	
VW Group	VW 52703	
VW Group	VW TL 527 03	

Celanese
The chemistry inside innovation™

SANTOPRENE® 121-60M200

SANTOPRENE®

Revised: 2025-04-21 Source: Celanese Materials Database