

# 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 <sup>[1]</sup> %	ISO 294-4, 2577
Moulding shrinkage, normal	0.8 <sup>[1]</sup> %	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/m <sup>3</sup>	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

# 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 BMW-HF	01378_21_03315
VW Group	VW 50123	
VW Group	VW 50180	
VW Group	VW 52703	
VW Group	VW TL 527 03	

# SANTOPRENE® 121-60M200

## SANTOPRENE®

Printed: 2025-05-30

Page: 3 of 3

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

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colourants or other additives may cause significant variations in data values. Properties of moulded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Other than those products expressly identified as medical grade (including by MT® product designation or otherwise), Celanese's products are not intended for use in medical or dental implants. Regardless of any such product designation, any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards. We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.

© 2025 Celanese or its affiliates. All rights reserved. Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC.