



SANTOPRENE® 121-85M100

SANTOPRENE®

A soft, black, UV resistant thermoplastic vulcanizate (TPV) in the thermoplastic elastomer (TPE) family. This material combines good physical properties and chemical resistance for use in difficult injection molding applications. This grade of Santoprene® TPV is shear-dependent and can be processed on conventional thermoplastics equipment for injection molding. It is polyolefin based and recycled within the manufacturing stream.

Key Features

- · Used in applications for exterior trims and spoilers for injection molding
- · Designed for fast, easy injection molding, especially for complex part geometries
- Used in sealing applications
- Recommended for applications requiring improved part surface appearance
- UL listed: file #QMFZ2.E80017, Plastics Component; file #QMFZ8.E80017, Plastics Certified For Canada -Component

Product information

Resin Identification Part Marking Code	TPV >TPV<		ISO 1043 ISO 11469
Typical mechanical properties			
Tensile stress at 100% elongation, perpendicular Tensile stress at break, perpendicular Elongation at break, perpendicular Brittleness Temperature Low temperature brittleness Shore A hardness, 15s Compression set, 70°C, 24h Compression set, 125°C, 70h Tear strength, normal	7.28 390 -52 -52 89 49 76	°C °C %	ISO 37 ISO 527-1/-2 or ISO 37 ISO 527-1/-2 or ISO 37 ASTM D 746 ISO 812 ISO 48-4 / ISO 868 ISO 815 ISO 815
	33	KIN/III	130 34-1
Flammability			
Burning Behav. at thickness h Thickness tested UL recognition		class mm	IEC 60695-11-10 IEC 60695-11-10 UL 94
Physical/Other properties			
Density	910	kg/m³	ISO 1183
Injection			
Drying Recommended Drying Temperature Drying Time, Dehumidified Dryer Processing Moisture Content Melt Temperature Optimum Min. melt temperature Max. melt temperature Mold Temperature Optimum Min. mould temperature	≥3 ≤0.08 215 195 240 30	% °C °C	

Printed: 2025-05-30 Page: 1 of 3

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





SANTOPRENE® 121-85M100

SANTOPRENE®

Max. mould temperature 50 °C

Characteristics

Processing Injection Moulding, Multi Injection Moulding

Delivery form Pellets

Special characteristics U.V. stabilised or stable to weather, High Flow

Additional information

Non Standard Data

Property Name	Condition	Value	Unit	Standard
Change in Tensile Strength	150°C, 168h	3	%	ISO 188
Change in Tensile Strain at Break	150°C, 168h	-24	%	ISO 188
Change in Shore A Hardness	150°C, 168h	1	-	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 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. For physical foaming, a specially modified thermoplastic extruder equipped with an adapted foaming agent dosing device is required. For mechanical foaming, a 30:1 extruder is recommended.

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.

Printed: 2025-05-30 Page: 2 of 3

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





SANTOPRENE® 121-85M100

SANTOPRENE®

Automotive

OEM STANDARD ADDITIONAL INFORMATION

General Motors GMW15812P-TPV(EPDM+PP)-Type 8M N/A

Mercedes-Benz DBL5562

Renault FRM 18-27-118 /---, No Spec, Special Part

Approval, See Your CE Account Manager.

Stellantis - Chrysler MS-AR-100 DMV Black

VW Group VW 50123

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 e

© 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.