

ISO 1183

SANTOPRENE® 121-50M100

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 recyclable within the manufacturing stream.

Key Features

- Designed for fast, easy injection molding, especially for complex part geometries
- Used in sealing applications
- Recommended for applications requiring improved part surface appearance
- Designed to be injected at lower molding temperatures or at lower injection pressures
- UL listed: file #QMFZ2.E80017, Plastics Component; file #QMFZ8.E80017, Plastics Certified For Canada -Component

Product information

1 Todact information			
Resin Identification	TPV		ISO 1043
Part Marking Code	>TPV<		ISO 11469
Tart Marking Codo	>11 V \		100 11 100
Typical mechanical properties			
Tensile stress at 100% elongation, perpendicular	1.8	MPa	ISO 37
Stress at break, perpendicular	4.39	MPa	ISO 527-1/-2 or ISO 37
Elongation at break, perpendicular	465	%	ISO 527-1/-2 or ISO 37
Brittleness Temperature	-60	°C	ASTM D 746
Shore A hardness, 15s	56		ISO 48-4 / ISO 868
Compression set, 70°C, 24h	31	%	ISO 815
Compression set, 125°C, 70h	42	%	ISO 815
Initial Tear Resist., Die C	15	kN/m	ISO 34-1
Flammability			
Burning Behav. at thickness h	НВ	class	IEC 60695-11-10
Thickness tested	1.1	mm	IEC 60695-11-10
UL recognition	yes		UL 94
Burning rate, Thickness 2 mm	32.2	mm/min	ISO 3795 (FMVSS 302)
Physical/Other properties			

Injection

Density

Max. regrind level	20	%
Back pressure	0.517	MPa
Eiection temperature	94	°C

Additional information

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

915 kg/m³

Printed: 2024-09-02 Page: 1 of 2

Revised: 2024-07-12 Source: Celanese Materials Database

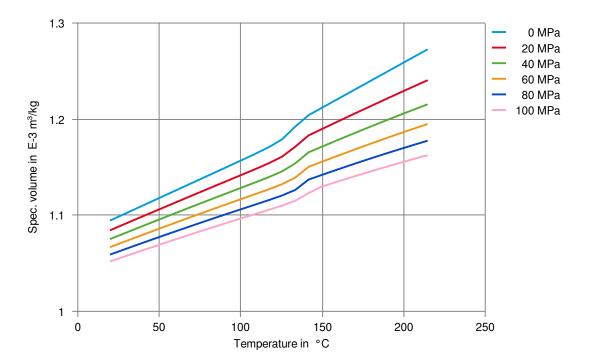


SANTOPRENE® 121-50M100

SANTOPRENE®

450°F) and is incompatible with acetal and PVC.

Specific volume-temperature (pvT)



Printed: 2024-09-02 Page: 2 of 2

Revised: 2024-07-12 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

© 2024 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. KEPITAL is a registered trademark of Korea Engineering Plastics Company, Ltd.